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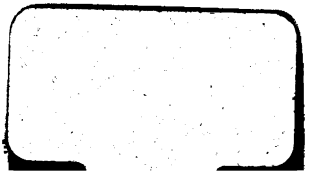

FIRST ANNUAL REPORT

OF THE

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INDIANA STATE

BOARD OF AGRICULTURE:

FOR THE YEAR 1852.

INDIANAPOLIS:
J. P. CHAPMAN, STATE PRINTER.
1852.

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NAMES OF THE MEMBERS

OF THE

STATE BOARD OF AGRICULTURE.

PRESIDENT.

GOV. JOSEPH A. WRIGHT, - - - Indianapolis, Ind.

FIRST VICE PRESIDENT.

GEORGE HUSSEY, - - - - - Vigo county.

SECOND VICE PRESIDENT.

SAMUEL EMISON, - - - - - Knox county.

TREASURER.

ROYAL MAYHEW, - - - - - Indianapolis, Ind.

SECRETARY.

JOHN B. DILLON, - - - - - Indianapolis, Ind.

MEMBERS.

JEREMIAH MCBRIDE, - - - - -	Martin county.
GEORGE W. BROWN, - - - - -	Shelby county.
JACOB R. HARRIS, - - - - -	Switzerland co.
JOHN MCMAHAN, - - - - -	Washington co.
GEORGE K. STEELE, - - - - -	Parke county.
JOSEPH ORR, - - - - - -	Laporte county.
A. SEWARD, - - - - - -	Monroe county.
GEORGE G. DUNN, - - - - -	Lawrence co.
DAVID P. HOLLOWAY, - - - - -	Wayne county.
ALEX. C. STEVENSON, - - - -	Putnam county.
THOS. W. SWINNEY, - - - - -	Allen county.
ROLAND WILLARD, - - - - -	Kosciusko co.
JOHN B. KELLY, - - - - -	Warrick county.

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FIRST ANNUAL REPORT.

INDIANAPOLIS, FEBRUARY, 1852.

To the General Assembly of the State of Indiana:

In obedience to the requisitions of the law creating the State Board of Agriculture, the undersigned respectfully presents the first annual report of that Board.

I have the honor to be, your obedient servant,

JOSEPH A. WRIGHT,

President of the Indiana State Board of Agriculture.

PRESIDENT'S REPORT.

The State Board of Agriculture, was organized on the 27th of May last. The proceedings and expenses of the May and January sessions are herewith attached.

The wisdom of the law of the last session, is made most manifest in the number of county societies that have organized under that law. More than thirty counties have adopted an organization, and twenty interesting reports are herewith submitted. Your special attention is called to the very full and highly interesting reports from the counties of Monroe, Elkhart, Tippecanoe, Wayne, &c.

It is very remarkable that a pursuit in which more than four-fifths of our population are engaged, should have remained so long without that spirit of emulation which the meetings

of county and State Fairs are so well calculated to bring about.

Agriculture as an art has been practised from the remotest period; but the developments of this day and age are showing the application of science to every pursuit in which man labors.

The public mind seems now to have waked up to the realization of something practical; and each man asks for himself the *best system*, the *best mode*, the *best manner* of reaping the reward for the labor bestowed upon the earth, or in the making of those articles that are found necessary for his comfort and condition in life.

In receiving an answer to these questions, men are now willing to exchange views and opinions with their neighbors. They are willing, yea, anxious to examine and look for themselves, upon the labor, machinery, and productions of the earth, to have the full history of all that is around them.

The annual products of the labor expended upon the soil, added to the productions of mechanical and other useful kinds of labor, constitute the real wealth of a State.

There is no State in our widely extended Union so well situated as is Indiana, for an advantageous application of agricultural labor and skill. The general fertility of the soil, the varied but temperate climate, are highly favorable to an abundant production of those staples, which are essential to supply the constantly increasing demand of the home market, and for which there is generally a very large foreign demand at fair prices.

It may be justly said, that a large increase of the amount of the aggregate wealth of a State will certainly follow the formation and organization of State and county agricultural associations.

The adoption of any system, that will make labor more *attractive*, that shall enlist the heart and energy of the people in the full development of the resources, will add to the aggregate wealth of any community. Yet, such an increase

of wealth is not, by any means, to be regarded as the most important and beneficial results growing out of such associations.

One of the great practical results that is to follow from a regular system of county and State associations, will be that of causing our people to change and diversify more their labor and pursuits.

This diversity will not be confined alone to the mere change of labor from agriculture to mechanics, but various changes in the various kinds of agricultural pursuits.

Our true policy as a State is to be, as far as practicable, independent; *to look more at home and less abroad for the elements of prosperity.* We should establish and sustain that policy, that will develope all our resources, and thereby advance the true interests of the State. This is a work that calls loudly for the exercise of all the influence of our public men, as well as our private citizens. And I would enumerate among the most important movements in this work, that system of Legislation that will build up State interest, State pride, and if you please, State ambition. We may rest assured that true, substantial wealth, will be found in the labor around us, of the husbandman, mechanic, and manufacturer.

Through the operations of a thorough system of organizations over the State, the Board will be able to collect, not only general, but particular and reliable information concerning the different soils of the State, the kind of agricultural labor that pays best, what articles are best adapted to such a soil and climate, the stock most in demand in the market, the various productions of each county in the State, different modes of farming by the best practical farmers, experiments on different soils, with various crops, redeeming wet and swamp lands, the mode and system adopted, stock raising, ditching, barns, stables, smoke houses, wells, springs, spring houses, modes of supplying stock water, &c. &c.

In view of the great quantity of wet and swamp lands in

the State, and the different modes adapted to redeem them, the Board have determined to offer a premium, at the anticipated State fair, for the best essay on this subject. In this way we expect to be able to present in the next annual report, some valuable suggestions on the subject of draining and ditching the large quantity of wet lands in this State.

In offering this premium, and others, such as that for the best model of a country residence, out-houses, barns, &c., the best essay on rendering available and profitable our hilly and broken lands, in all these, the Board seek to accomplish what is always desirable, the saving of time and toil, by means of the most judicious, skillful and approved application of labor to any given pursuit.

There is believed to be just cause of complaint in many parts of the State, from the running at large of male stock of various kinds. The wanton and malicious destruction of trees, shrubs, flowers, vines, &c., has been brought to the attention of the Board. In connection with these subjects, the Board is impressed with the importance of providing by law, some sure remedy for the destruction of sheep by dogs. This useful and profitable animal, in many parts of the State has been entirely destroyed in this way. On all these subjects, it is believed by your Board, that efficient and stringent laws are called for by the best interests of society.

It is suggested that the general use of stone coal, demands the providing by law, of some fixed and certain weight for the legal bushel of coal.

There are other articles that should receive a definite and precise weight by law. I herewith attach the weight per bushel to the following articles, as recognized and established in some of the States. They are worthy of your consideration:

Of Wheat	60 pounds.
Of Shelled Corn	56 pounds.
Of Corn in the cob	72 pounds.
Of Rye	56 pounds.
Of Oats	36 pounds.
Of Barley	48 pounds.

Of Potatoes	60 pounds.
Of Beans	60 pounds.
Of Cloverseed	60 pounds.
Of Flaxseed	56 pounds.
Of Hempseed	44 pounds.
Of Buckwheat	52 pounds.
Of Blue Grass seed	14 pounds.
Of Castor Beans	46 pounds.
Of Dried Peaches	33 pounds.
Of Dried Apples	25 pounds.
Of Onions	57 pounds.
Of Salt	50 pounds.
Of Mineral Coal	70 pounds.

It is to be regretted that, so far, no means have been devised for obtaining full statistical information of each county. We should obtain by our own officers, accurate annual statistical details of the great agricultural, mechanical, and manufactuaing industrial products of the State. Without this information, no representative is prepared to discharge his duties faithfully to those he represents.

We believe, under a perfect organization of county agricultural societies, such as is contemplated by the State Board, we shall be able to furnish a considerable amount of information, touching the industrial products of the State.

In this report, the first under the sanction of the State, some considerable information is furnished on this subject.

It would be an interesting table to lay before the Legislature, and through them to the people, the entire surplus of Indiana the past year. The estimates in some of the counties are very large; in the county of Laporte amounting to four hundred thousand dollars, and yet we doubt not the surplus of other counties exceeds this amount.

The surplus of the State has been estimated by many the past year, at from twenty to twenty-five millions.

By the census of 1850, we are able to arrive at the fact, that nearly eight-tenths of what we purchase out of the State, is the labor and production of our sister States; and we may safely assert that more than one-half of this amount is the product of the labor and skill of other States not as favorably situated for mechanical and manufacturing labor

as our own. In those essential combinations for successful mechanical and manufacturing labor, such as iron, coal, soil, water-power, marble, stone quarries, timber, &c., Indiana has no equal in the Union; yet the iron, coal, and minerals of our State, are taken abroad and successfully used to profit, by the labor of others.

We seem to be anxious to exhaust our forests of walnut and cherry, that the mechanics of other States, may reap the reward thereon.

The bringing together the mechanics of our own and other States, in the county and State fairs among us, with the best specimens of their skill and labor, is well calculated to foster and encourage the mechanical labor of the country.

The great advantages that result from the assembling of farmers, mechanics, and manufacturers, in associations, in which the productions of their skill and labor are exhibited, consists in a free interchange of views and opinions; you thereby stimulate industry, bring together the most distinguished mechanics of the State, with, not only the work of their brain and hands, but they come together to inquire into the wants of the country, that they may return to their workshops to perfect the inventions that have been suggested by these means. The manufacturer exhibits the result of his inventions and labor; the farmer the mode, process, and improvements of the farm; the trials, tests, and experiments that are thus exhibited, will create a spirit of rivalry, well calculated to develope the resources of the country—well adapted to show the real wants of the people, and the prospects and means of supplying those wants. In this way every branch of industry is made better acquainted with the mutual wants and dependency of each; and in this laudable spirit of emulation, the country marches forward in real and substantial improvement in the true road to wealth.

A very considerable sum of money is paid abroad by our people, for stock, implements and productions of other States,

the most of which will be saved in a few years by these associations.

You have in this the first report under the law of last session, the best evidence that can be offered of the wisdom of these associations.

You appropriated one thousand dollars to the use of the Board at the last session; only five hundred dollars of that sum has been expended. There have been two sessions of the Board during the past year. Hereafter there will be but one annually, so that the expenses of the State Board will not exceed the sum of two hundred and fifty dollars per year. We respectfully ask your honorable body to appropriate the sum of two thousand dollars for the use of the Board this year. It is contemplated by the Board to hold a State Fair at some point in the State, the ensuing fall, and to pay out the sum of at least twenty-five hundred dollars in premiums. The State would lose nothing if no part of this expenditure was refunded. The great stimulus given to the various branches of industry, the increase of property thereby subject to taxation, will more than four-fold repay the State. Yet your Board has no hesitation in saying, that by the proceeds of the contemplated State Fair, we shall be able to refund into the State Treasury, every cent advanced, with a surplus to commence operations for the ensuing year.

The Board herewith append their circular issued at the first meeting, together with the entire proceedings of the two sessions.

We respectfully ask, that not less than three thousand copies of this report be published. We desire to furnish a certain number of these reports to each of the county societies in the State, that they may be used as premiums at the county fairs.

We shall exchange several hundred copies with our sister States, that we may have their reports in exchange therefor, which we design to give out as premiums at our State fair. In this way we hope to be able to communicate the know-

ledge and information of our sister States, in the various branches of industry, to every county, and as near as possible to each citizen of our State.

There are so few returns, in detail from county societies, that it is not thought necessary, in this report, to take up the leading articles of the State, such as corn, wheat, cattle, hogs, sheep, oats, hay, &c.

Whenever the organization is made general and uniform throughout the State, the Board will be able to offer such suggestions as to the leading articles of the country, as it is believed will be useful to the full development of the resources of the State in agriculture, mechanics, and manufactures.

In comparison with our sister States, this report will compare favorably with their first efforts. In one of the adjoining States, their first report did not exceed sixty pages. This will exceed two hundred, and we believe equals the reports of any of the States of the Union, in their first efforts to furnish information upon their leading industrial productions.

There is a manifest spirit of improvement abroad in our State. We doubt not your honorable body will aid and further on, by all means within your reach, this great movement of rivalry—this work of competition—this spirit of emulation. By this means Indiana may soon stand, not the fourth or fifth State in the Union, but in the elements of true, substantial wealth, the very first.

JOSEPH A. WRIGHT.
President of the Board.

February 14, 1852.

ITEMS OF EXPENSE OF THE STATE BOARD OF AGRICULTURE.

May Session, 1851.

R. Willard, delegate, expenses alone,	$29 00
John B. Kelly, delegate, expenses alone,	25 00
John Ratliff, delegate, expenses alone,	12 75
J. McBride, delegate, expenses alone,	9 25
D. P. Holloway, delegate, expenses alone,	14 00
G. W. Brown, delegate, expenses alone,	12 00
Jacob R. Harris, delegate, expenses alone,	15 00
Samuel Emison, delegate, expenses alone,	23 00
George Hussey, delegate, expenses alone,	7 50
Thomas W. Swinney, delegate, expenses alone,	34 00
J. P. Chapman, for printing,	64 64
	$246 14

January Session, 1852.

John Ratliff, delegate, expenses alone,	$14 00
Jacob R. Harris, delegate, expenses alone,	15 00
Jeremiah McBride, delegate, expenses alone,	21 00
E. Singer, delegate, expenses alone,	5 50
W. C. Donaldson, delegate, expenses alone,	8 00
John W. Grubbs, delegate, expenses alone,	5 00
J. Morgan, delegate, expenses alone,	8 25
G. W. Brown, delegate, expenses alone,	10 00
George K. Steele, delegate, expenses alone,	8 00
Thomas Durham, delegate, expenses alone,	8 25
Charles M. Stone, delegate, expenses alone,	10 25
John Hall, delegate, expenses alone,	15 00
John Levering, delegate, expenses alone.	12 00
Thomas W. Swinney, delegate, expenses alone,	34 00
W. T. Dennis, delegate, expenses alone,	12 00
C. L. Murray, delegate, expenses alone,	18 00
Joseph Orr, delegate, expenses alone,	19 00
William Allen, delegate, expenses alone,	19 00
John B. Dillon, Secretary,	50 00
	$292 25

Total expenditure to date, $538 39

Witness my hand this 27th day of January, 1852.

E. W. H. ELLIS,
Auditor of State.

PROCEEDINGS

OF THE

INDIANA STATE BOARD OF AGRICULTURE.

May Session, 1851.

INDIANAPOLIS, Tuesday, May 27, 1851.

The Indiana State Board of Agriculture met this day in the Hall of the House of Representatives.

Present—Gov. Joseph A. Wright, of Marion county; Jeremiah McBride, of Martin county; Roland Willard, of Kosciusko county; Jacob R. Harris, of Switzerland county; John Ratliff, of Hendricks county; David P. Holloway, of Wayne county; John B. Kelly, of Warrick county; Samuel Emison, of Knox county; Thomas W. Swinney, of Allen county; George W. Brown, of Shelby county; George Hussey, of Vigo county.

And from the society of Putnam county, W. D. Allen; from the society of St. Joseph county, Joseph L. Jernegan; from the society of Vermillion county, R. M. Waterman; from the society of Kosciusko county, G. W. Stacy; from the society of Montgomery county, S. C. Willson.

The Board was called to order, and,

On motion, a ballot was had for President, which resulted in the unanimous election of Governor Joseph A. Wright.

On motion,

The Board adjourned until to-morrow at ten o'clock.

WEDNESDAY, MAY 28, 1851.

The Board met pursuant to adjournment, and proceeded to hold an election for additional officers; whereupon

JOHN B. DILLON was elected Secretary;

ROYAL MAYHEW was elected Treasurer;

GEORGE HUSSEY was elected 1st Vice President;

SAMUEL EMISON was elected 2d Vice President.

The members of the Board then proceeded to draw lots for terms of service, and the following was the result:

For a term of two years—Messrs. Wright, Willard, Holloway, McLane, Emison, Swinney, Hussey, and Stevenson.

For a term of one year—Messrs. McBride, Ratliff, Kelly Ellsworth, McMahan, Brown, Orr, and Harris.

The President of the Board delivered an address on the importance of encouraging and sustaining the agricultural interests of the State of Indiana.

Mr. Holloway laid before the Board the following plan for the organization and management of county or district societies:

First. The officers of a society shall consist of a President, Vice President, Treasurer, Secretary, and a director from each civil township in said county or district, who, together shall constitute a Board of Directors for the general management of the affairs of the society. They shall be elected annually by the members of the society, and hold their offices until their successors are appointed.

Second. Members of the society must be residents of the county or district, and pay a sum not less than one dollar annually to the Treasurer.

Third. Competitors for premiums must be members of the society.

Fourth. A list of the articles for which premiums are to be awarded by the society must be published in a newspaper or in handbills, at least one month previous to the day of exhibition.

Fifth. All articles offered for premiums must be owned by the persons offering the same, or by members of their families; and products of the soil, or manufactured articles, must be produced or manufactured within the county or district.

Sixth. Awarding committees of three persons each, shall be annually appointed by the directors of the society, for judging the different classes of articles offered in competition, and awarding premiums for the same.

Seventh. The awarding committees must comply with the provisions of the law requiring competitors for premiums on crops and other improvements, to furnish full and correct statements of the process and expense of culture or production, &c.

Eighth. Competitors for premiums on crops shall be required to have the ground and its produce accurately measured by not less than two disinterested persons, whose statements must be certified in writing.

Ninth. Premiums on grain and grass crops shall not be awarded for less than one acre, and on root crops not less than one fourth of an acre. The whole quantity produced on the amount of land specified, shall be measured or weighed; root crops to be estimated by weight, (divested of the tops) sixty pounds to be considered a bushel; and grain crops to be weighed according to the statute weight of the State. The rules in relation to other crops and productions to be agreed on by the directors of the society.

Tenth. The annual exhibitions of the society must be held at some period between the first of September and the first of November of each and every year. The premiums on crops may be awarded at a later period if thought necessary.

The foregoing plan of organization for county or district societies was,

On motion of Mr. Holloway,

Referred to a committee of three, to be appointed by the President of the Board. Whereupon

Messrs. Holloway, Brown, and Harris were appointed said committee.

Mr. Holloway offered the following resolution, concerning the reports of county or district societies.

Resolved, That the following rules shall be observed by county or district societies in preparing the reports required by the third section of the law to be made annually to the Board, at its meeting in January:

1. A copy of the printed list of premiums offered and awarded by the society, together with the abstract of the Treasurer's report.

2. The statements of successful competitors for premiums on crops, and other improvements, detailing the mode of tillage, or process of the improvement, &c.

3. A report by the President and Secretary, giving a general account of the proceedings of the society, the number of its members, and the prospect of its progress and usefulness, together with copies of addresses, &c.

4. A statement of the principal kinds of agricultural productions of the county or district; and as far as practicable, the aggregate amount of the same. Also the average yield per acre of the principal crops for the past season; the value or current price of the products in market, together with the towns or places where principally sold; and all such other information as may aid the State Board in preparing a statistical table of the products of such county or district.

Mr. Holloway moved to refer the foregoing resolution to a committee of three.

Mr. Brown proposed that it be referred to a committee of five; which was agreed to, and

Messrs, Holloway, Brown, Harris, Stacy, and Swinney, were appointed said committee.

On motion of Mr. Waterman, it was

Resolved, That a committee of three be appointed to draft rules for the government of the State Board of Agriculture,

and to report the same to the Board at its meeting in January, 1852.

Messrs. Waterman, Willard, and Allen were appointed a committee for that purpose.

On motion of Mr. Allen,

A committee of five was appointed to take into consideration and report upon the expediency of holding a State Agricultural Fair in the fall of this year.

The committee appointed consisted of Messrs. Allen, McBride, Kelly, Jarnegan, and Holloway.

On motion of Mr. Hussey,

A committee of three was appointed, consisting of Messrs. Hussey, Brown, and Ratliff, to take into consideration and report upon the propriety of adopting measures to give proper encouragement for the establishment and support of an agricultural newspaper.

On motion of Mr. Brown,

The Board adjourned to meet at two o'clock in the afternoon of this day.

AFTERNOON SESSION.

The Board met pursuant to adjournment.

Mr. Holloway presented the following report:

Mr. President—The select committee to which was referred a paper relative to the organization and management of county or district societies, and another relative to the reports of county or district societies, have given the same their attention, and respectfully recommend that they be adopted by the Board.

Which report was concurred in.

Mr. Allen laid before the Board the following report:

The select committee to whom was referred the subject of holding a State Agricultural Fair next fall, have had the subject under consideration, and a majority of the committee

have directed me to report in favor of holding a State Fair at the time mentioned.

After some discussion, in which Messrs. Allen, McBride, Brown, Harris, Wright, Holloway and Jernegan participated, the further consideration of the report was postponed until to-morrow.

Mr. Hussey made the following report:

Mr. President—The committee appointed to consider the propriety of supporting an agricultural work, to be published in this State, respectfully beg to report that they have taken the same into consideration, and recommend to this Board, the county societies and the agriculturists generally throughout the State, the propriety of encouraging a work of that kind, to be established at some suitable point in the State; all of which is respectfully submitted.

Which report was concurred in.

Mr. Holloway offered the following resolution:

Resolved, That the President and Secretary be requested to prepare printed circulars, and address them to the presidents of the different agricultural societies, or other suitable persons in counties where no such societies exist, asking them to communicate to the Board the desired facts and statistics in relation to agriculture.

Which resolution was adopted.

On motion of Mr. Holloway, the following resolution was adopted:

Resolved, That the President and Secretary be directed to address letters to the different State agricultural societies, and to any such societies in foreign countries they may deem proper, soliciting a correspondence, and to express the desire of this Board to interchange with them any information, books, reports, or other productions that may be deemed valuable.

The Board adjourned to meet to-morrow morning at eight o'clock.

THURSDAY, May 29, 1851.

The Board met pursuant to adjournment, and the minutes of the proceedings of yesterday having been read;

The president laid the following communication before the Board:

"INDIANAPOLIS, May 29, 1851.

GOV. WRIGHT:

I send to you a copy of the 'Indiana Farmer and Gardener,' for each member of the State Board of Agriculture, which please present to them and oblige,

Yours, &c.,

JOHN D. DEFREES."

On motion of Mr. Waterman,

Resolved, That the thanks of this Board be tendered to J. D. Defrees, for the valuable present of a volume of the "Farmer and Gardener" to each member of this Board.

On motion, it was,

Resolved, That the thanks of this Board be tendered Col. S. Medary for five volumes of Ohio Agricultural Reports.

On motion of Mr. Wright, it was,

Resolved, That the copies of Ohio Agricultural Reports, presented by Col. Medary, be donated to the organized county agricultural societies in Indiana.

The report of Mr. Allen concerning the time of holding a State Agricultural Fair, was taken up, and

On motion of Mr. Holloway,

The report was amended by fixing the fall of the year 1852 as the time for holding the first State fair.

And the report was then adopted.

The following resolution was adopted:

Resolved, That each member of the State Board of Agriculture, be authorized to make out an account of the expenses incurred by him in attending the present session of the

Board, and present the same to the Secretary of the Board, who shall certify the account to the Auditor of State.

On motion of Mr. Allen, it was,

Resolved, That the President and Secretary of the Board, cause three thousand copies of circulars relating to the organization of county or district societies, to be printed and distributed.

On the suggestion of Mr. Harris of Switzerland county, the several members of the Board present, made statements concerning the prospects of the crops of wheat, corn, &c., in Indiana, at the present time.

After which, various modes of reclaiming wet lands, by ditches or underdrains, were discussed.

On motion of Mr. Allen, it was

Resolved, That the editors of the several newspapers in Indiana, be requested to publish the proceedings of this meeting of the State Board of Agriculture.

On motion of Mr. Brown, it was

Resolved, That the Board now adjourn to meet at the State House, on Thursday after the first Monday in January 1852.

JOSEPH A. WRIGHT,
President.

JOHN B. DILLON, *Secretary.*

PROCEEDINGS

OF THE

STATE BOARD OF AGRICULTURE.

JANUARY SESSION, 1852.

INDIANAPOLIS, January 8, 1852.

The second session of the Indiana State Board of Agriculture, was commenced this day in the Supreme Court room at the State House.

The Board was called to order by the President, Governor Joseph A. Wright, and the following members of the Board were present, viz:

Joseph A. Wright, of Marion county.
Alexander C. Stevenson, of Putnam county.
Jeremiah McBride, of Martin county.
Jacob R. Harris, of Switzerland county.
John Ratliff, of Morgan county.
Joseph Orr, of Laporte county.
David P. Holloway, of Wayne county.
Thomas W. Swinney, of Allen county.
George W. Brown, of Shelby county.

The following named persons appeared and were admitted as delegates from county agricultural societies:

From the county of Allen, I. D. G. Nelson.
From the county of Elkhart, C. L. Murray.
From the county of Fayette, Chas. M. Stone.
From the county of Hendricks, E. Singer.
From the county of Henry, J. W. Grubbs.
From the county of Knox, James D. Williams.
From the county of Laporte, William Allen.
From the county of Marion, Calvin Fletcher.
From the county of Martin, W. E. Niblack.
From the county of Monroe, L. Bollman.
From the counties of Ohio and Switzerland, John Hall.
From the county of Parke, G. K. Steele.
From the county of Rush, Jesse Morgan.
From the county of Shelby, Rev. D. Whitcomb.
From the county of Steuben, Geo. W. McConnell.
From the county of Tippecanoe, John Levering.
From the county of Vigo, Thomas Durham.
From the county of Wayne, Wm. T. Dennis.

Mr. Orr offered the following resolution, which was adopted:

Resolved, That the members of the Senate and House of Representatives be requested to attend the meetings of the State Board of Agriculture, when convenient, and particularly our night sessions, and participate in the deliberations and discussions of the Board; and that the Secretary furnish a copy of this resolution to both Houses.

Mr. Singer moved to go into an election for members of the State Board, to fill the vacancies of those whose terms expire this day.

After some discussion, it was resolved to go into such election this evening.

Reports from county societies were called for, and presented, from the counties of Elkhart, Fayette, Henry, Monroe, Marion, Morgan, Ohio and Switzerland, Parke, Putnam, Porter, Rush, St. Joseph, Tippecanoe, Vigo, and Wayne.

On motion of Mr. Brown,

The President appointed a committee to report, as soon as practicable, rules for the government of the State Board.

The committee consisted of Messrs. Brown, Nelson, Allen, Steele, and Dennis.

The President laid before the Board various reports, documents, &c., relating to agriculture, received from the States of New York and Ohio.

The President also laid before the Board two communications from Gen. Joseph Orr, of Laporte county, relating to the draining of wet lands, and to the state of agriculture in Laporte county.

A communication from M. R. Hull, of Fayette county, relating to sheep and wool growing, and to agriculture generally, was laid before the Board by the President.

On motion of Mr. Levering,

A committee of three was appointed to find out what amendments the present law for the encouragement of agriculture requires, and to report such amendments to this Board.

Messrs. Levering, Holloway and Nelson were appointed said committee.

On motion of Mr. Dennis,

Resolved, That the Legislature be requested to amend the act for the encouragement of agriculture, so that all regularly organized horticultural societies within the State, be placed on the same footing as the county societies.

Mr. Holloway offered the following resolution:

Resolved, That an executive committee of three shall be appointed, of which the President shall be chairman, to determine the time and place of holding the State Fair, with full powers to offer and award premiums under the law of 1851, for the promotion of agriculture.

Mr. Stevenson moved to amend the resolution by striking out all after the wore "resolved," and inserting the following: "That a committee of five be appointed to make out and report to this Board, a premium list."

Which amendment was lost, and the resolution was then adopted.

Mr. Steele offered the following resolution:

Resolved, That the committee on the agricultural law inquire into the expediency of so amending that law, that the assessors shall, in each county, take down in their assessments, the number of stock.

Mr. Fletcher suggested an amendment, including the number of acres of wheat, rye, corn, oats, barley, flax, hemp, potatoes, broom-corn, vineyards, &c.; which amendment was accepted, and the resolution was then adopted.

Gov. Wright offered the following resolution:

Resolved, That the State Board of Agriculture, in their report to the Legislature, be requested to ask an appropriation of two thousand dollars, for the use of the Board during the present year.

Which was adopted.

Mr. Dennis offered the following resolution:

Resolved, That each delegate present be requested to furnish the Secretary with the names of ten suitable persons in their respective counties, to act as judges at the State Fair, designating the particular classes of articles upon which the persons named are considered qualified to act.

Which was adopted.

Mr. Holloway offered the following resolution:

Resolved, That the executive committee be, and they are hereby instructed to give notice through the public press, that the State Fair of 1852 will be held at such place as will contribute the largest sum to defray the expenses of said Fair; but said executive committee shall take into consideration the local advantages of the different towns or cities, making application for the holding of said Fair in their respective places.

Which was adopted.

On motion of Mr. Nelson,

The Board adjourned to meet in the Hall of the House of Representatives at 7 o'clock this evening.

EVENING SESSION.

January 8, 1852.

The Board met pursuant to adjournment.

A report from the Hendricks county agricultural society was received.

Mr. Cockrum was admitted as a delegate from the agricultural society of Gibson county.

On motion of Mr. Singer,

The delegates proceeded to an election of members of the State Board of Agriculture, to fill the vacancies of those whose terms of service expires to-day, and the result of the first ballot was as follows:

Jeremiah McBride received,	17 votes.
George W. Brown received,	17 votes.
Jacob R. Harris received,	18 votes.
John McMahan received,	18 votes.
George K. Steele received,	17 votes.
Joseph Orr received,	16 votes.
A. Seward received,	16 votes.
George G. Dunn received,	18 votes.
H. L. Ellsworth received,	1 vote.
D. P. Holloway received,	1 vote.
John Ratliff received,	2 votes.

Whereupon the President declared Messrs. McBride, Brown, Harris, McMahan, Steele, Orr, Seward and Dunn elected members of the Indiana State Board of Agriculture, until the day of the meeting of the Board in January, 1852.

Mr. Brown, from the committee on Rules, made the following report:

"The committee on Rules respectfully beg leave to report the following—

First. The Board shall meet on its own adjournments.

Second. The business of the Board shall be transacted in accordance with the regular rules of legislative bodies.

Third. A committee of three shall be appointed by the President, on *Publication*, to whom all matters pertaining to the printing of the Board shall be referred.

Fourth. A committee of three shall be appointed by the President, on *Schedule of Premiums*, to whom all matters pertaining to premiums shall be referred.

Fifth. A committee of three shall be appointed by the President, on Amendments, to whom all matters relating to any revision or alteration of the act relating to agriculture shall be referred.

Sixth. A committee of three shall be appointed by the President, of whom the President shall be chairman, as an *Executive* committee, who shall have all necessary powers to arrange the time, place, and manner, of holding the State Fair, subject to the instructions of the Board.

Seventh. A committee of three shall be appointed by the President, as a committee on *Business*, to whom all matters not already provided for, shall be referred.

Which report was concurred in.

A report from Laporte county was laid before the Board.

Gov. Wright offered the following resolution:

Resolved, That the Executive committee be instructed, in awarding premiums, to make a portion of them in silver cups, a portion in money, a portion in books, and a portion in diplomas and certificates.

Mr. Holloway moved to strike out from the resolution all after the word "resolved," and to insert the following:

"That the premiums offered by this Board shall be payable in money, works of agriculture and diplomas, except on such articles of a horticultural character as the Executive committee may designate, which shall be awarded in silver cups."

Mr. Bollman moved to amend the amendment of Mr. Holloway, by adding after the word "money," the words "agricultural implements."

Which motion did not prevail.

Mr. Dennis offered the following resolution as a substitute for Mr. Holloway's amendment:

Resolved, That successful competitors, for first class premiums, shall have it at their option to take the money, or its value in silver cups, to be furnished by the Board upon their order, with proper inscriptions.

Which substitute was adopted.

On motion of Mr. Brown,

The resolution and substitute were laid on the table to be taken up to-morrow.

Mr. Murray offered the following resolution:

Resolved, That the President and Secretary of the State Board of Agriculture, be requested to make out and submit to the Legislature, at its present session, a detailed report of the proceedings of said Board for the last year, its prospects for usefulness, the number of county societies organized or revived since it went into operation, and the present condition of the agricultural interests of the State, with such other observations as may be deemed useful to the Legislature or the people.

Resolved, That said report, when made, shall contain, in the form of an appendix, or otherwise, the reports in full of all the county agricultural societies in the State for the last year, together with the addresses made before each society during that period, so far as copies may be furnished.

Which resolutions were adopted.

Mr. Bollman submitted the following preamble and resolutions:

WHEREAS, A great and increased demand exists among the farmers of our State, for the annual agricultural reports, issued from the office of the commissioner of patents, and

as the supply is totally inadequate to this increased demand;

And whereas, Through the organization of our State Board of Agriculture, and the county associations, means are presented for the distribution of seeds; therefore, be it

Resolved, That we respectfully solicit the commissioner of patents to forward, annually to each county agricultural society in this State, ten copies of his annual agricultural report, to be by them placed in their respective libraries.

Be it further resolved, That we solicit the commissioner of patents, to forward to the State Board, a portion of such seeds, plants, &c., for the farm and the vegetable and flower gardens, that may come to his office, and such as, in his opinion, will be adapted to the climate of Indiana.

Be it further resolved, That the Secretary of the State Board forward a copy of these resolutions to the commissioner of patents, together with a list of the names of the several county societies.

And be it further resolved, That a committee of three be appointed to report upon the best means of establishing an interchange of seeds, plants, &c., between the county associations and the State Board.

Which resolutions were, at the request of Mr. Bollman, laid on the table until to-morrow.

On motion of Gov. Wright,

A committee of three, consisting of Messrs. Holloway, Stone, and Durham, was appointed to report to this Board the number of copies of the report of the State Board which it would be proper for the Legislature to cause to be printed.

Mr. Singer submitted the following resolution:

Resolved, That this Board appoint a committee to take into consideration the propriety of suggesting some feasible plan for the establishment of an agricultural school.

Which motion was laid on the table.

Mr. Stevenson offered the following resolution:

Resolved, That the committee on Rules be instructed to

report a resolution fixing the terms of service of the President and other officers of the Board, and also to define their duties.

Which was adopted.

On motion of Mr. Singer, it was

Resolved, That the Board, in their report to the Legislature, urge upon their attention the necessity for more stringent enactments for the protection of orchards, vineyards and other crops liable to molestation by trespassers.

Mr. Steele offered the following resolution:

Resolved, That the committee to recommend amendments to the law of last winter, inquire into the expediency of so altering the law, as to give each county regularly organized into a society for the promotion of agriculture, fifty dollars from the treasury, instead of the present law; and that the money raised from shows, exhibitions, &c., be paid into the State Treasury, to be distributed among the organized agricultural societies.

Which was adopted; and,

On motion,

The Board adjourned to meet at ten o'clock to-morrow morning.

FRIDAY, JANUARY, 9, 1852.

The Board met pursuant to adjournment.

The President laid before the Board a report from Tippecanoe county, and a letter from H. L. Ellsworth, of Lafayette.

The President of the Board then announced the following committees:

COMMITTEE ON SCHEDULE OF PREMIUMS.

Messrs. Stevenson, Singer and Williams.

ON AMENDMENTS.

Messrs. Harris, Grubbs and Dennis.

ON PUBLICATION.

Messrs. Swinney, Bollman and Fletcher.

ON BUSINESS GENERALLY,

Messrs. Orr, Hall and McConnell.

EXECUTIVE COMMITTEE.

Messrs. Holloway and Brown, (the President of the Board being chairman,) and Mr. Stevenson, subsequently added to the committee.

The committee on rules for the government of the State Board, made the following report:

The officers of this society shall consist of a President, Treasurer and Secretary.

The President shall hold his office for two years, and until his successor is qualified. He shall preside at all meetings of the Board, and perform such duties as may be proper, as the presiding officer of said Board.

The Treasurer shall hold his office for two years, and until his successor is qualified; and shall execute a bond to the State Board in the penal sum of ten thousand dollars, conditioned for the faithful discharge of his duties, and with freehold security to the satisfaction of the Board.

It shall be the duty of the Treasurer to receive all moneys on account of any and all the business operations of the Board, and pay the same out upon the warrants of the Secretary, countersigned by the President. He shall make an annual report to the Board, upon the first day of its regular annual meeting, embracing a full exhibit of his operations during the year.

The Secretary of the State Board shall hold his office for

two years, and until his successor is qualified. He shall keep a true record of the proceedings of the Board. He shall conduct all correspondence on behalf of the Board, except when otherwise directed by the President.

He shall, by himself and assistants, arrange the details of the entries, tickets, enroll the names of committees and judges of the State Fair, receive and record the various reports of the awarding committees, fill out and deliver all diplomas and certificates, and perform such other duties as the best interests of the Board may demand.

He shall receive a salary of —— dollars per annum, which shall be in full compensation for all duties he may perform.

Mr. Stevenson moved to amend the foregoing report so as to limit the term of service of the President to one year.

Which motion was lost, and the report was concurred in.

Mr. Donaldson, of Parke county, was, on motion of Mr. Steele, admitted as a delegate to this session of the State Board.

Mr. Stevenson offered the following resolution:

Resolved, That the committee on Rules be instructed to report rules for the government of the State Fair, the price of admittance to the grounds, &c.

Mr. Fletcher moved to amend the resolution so as to authorize the executive committee to adopt rules for the management of the State Fair.

Which amendment was concurred in, and the resolution, as amended, was adopted.

Mr. Stevenson was, on motion of Mr. Fletcher, added to the executive committee of the State Board.

On motion of Mr. Fletcher,

Resolved, That the President of the Board be authorized to fill any vacancies that may occur in the executive committee.

Mr. Williams offered the following resolution, which was adopted:

Resolved, That the executive committee be instructed to take charge of all matters not otherwise referred.

Gov. Wright offered the following resolution, which was adopted:

Resolved, That the committee on Schedule of Premiums, be requested to report to this Board a list of premiums to be awarded at the contemplated State Fair, and if not convenient to make such report, to make to this Board any suggestions they may deem advisable in relation to the articles on which premiums should be awarded.

At the suggestion of Mr. Stevenson, the communications from Gen. Orr of Laporte county, and Mr. M. R. Hull of Fayette county, were taken up and read.

When, on motion, the Board adjourned to meet at two o'clock.

AFTERNOON SESSION.

2 o'clock, P. M., January 9, 1852.

The Board met.

The committee, to whom the subject was referred, laid before the Board the following report:

Mr. President—The committee to which was referred the duty of determining the proper number of copies of the report of this Board to be printed, respectfully recommend that 2,500 be printed, the Legislature consenting.

Which was concurred in.

Mr. Niblack laid before the Board a report from Martin county.

Mr. Donaldson offered the following resolution:

Resolved, That the committee on Amendments inquire into the expediency of so amending the rules governing county or district associations, as to award premiums on root crops of a less quantity than one-fourth of an acre.

Which was adopted.

Mr. Dennis offered the following resolution:

Resolved, That a committee be appointed by the President,

who shall visit the Fairs of other States for the purpose of a friendly interchange of civilities with our agricultural friends therein, and for the purpose of examining such new varieties of stocks, implements, machinery, &c., as they may deem worthy of consideration, together with such details as, in their opinion, would subserve the interests of their societies, and they shall report the same to the next annual meeting of the Board.

Which was adopted.

Mr. Dennis offered the following resolution:

Resolved, That the Wayne county agricultural society be empowered to make the premiums, to be awarded at its coming Fair, open to all as far as its directors may determine.

Mr. Levering moved to amend the resolution so as to extend its provisions to all county societies.

Mr. Allen offered the following resolution as a compromise:

Resolved, That all county fairs shall be open for competition to all counties which have agricultural societies formed.

Which resolution and the amendment of Mr. Levering were lost.

A vote was then taken on the question and the resolution offered by Mr. Dennis, was not adopted.

Mr. Nelson offered the following resolution:

Resolved, That it shall be lawful for any person residing in a county where no agricultural society is formed, to connect himself with any other county society, and remain a member of such society so long as no society shall be organized in his own county and no longer.

Which was not adopted.

A report by Mr. Levering from Tippecanoe county was read by the President of the Board; after which,

The board went into committee of the whole, to discuss the various methods of draining and reclaiming wet lands;

after an interesting discussion, in which several members took part;

The Board adjourned to meet at 7 o'clock this evening.

EVENING SESSION.

The Board met.

Mr. Stevenson moved that the Executive committee be instructed to offer a premium of twenty-five dollars for the best plan of a dwelling; one of twenty-five dollars for the best plan of a barn; and one of twenty-five dollars for the best essay on rendering useful the hilly lands of the State; each plan of a building to be accompanied with specifications.

Mr. Murray moved an amendment, requiring three plans of dwellings to be given—one costing not over five hundred dollars—one not over seven hundred and fifty dollars—and one costing not over one thousand dollars.

After some discussion the amendment of Mr. Murray was withdrawn.

Mr. Nelson moved an amendment, limiting the cost of dwelling, out houses and barn, to one thousand dollars.

Which amendment was lost, and the motion of Mr. Stevenson was then agreed to.

Mr. Levering, from the committee on amendments, made the following report:

The committee appointed to report to the Board such alterations and amendments in the laws pertaining to agriculture as they may deem necessary, beg leave to submit the following:

First. Amend so that the time of service of one half the members of the Board shall expire on the last day of the session of the annual meeting in January.

Second. Amend so as to fix definitely the pay of the members of the State Board proper, confining such compensation to the actual expenses incurred, and requiring each county

society to pay the expenses of their delegate or President in their attendance of the meetings of the State Board.

Which report was concurred in.

Mr. Nelson submitted the following resolution:

Resolved, That each member of this Board be requested to use his influence in extending the circulation of the Indiana Farmer, by subscribing for it himself if he is not already a subscriber, and using his influence in inducing others to subscribe.

Which was unanimously adopted.

The resolution offered by Gov. Wright, and the amendment proposed by Mr. Dennis, on the subject of premiums, were then taken from the table, and the amendment was lost.

The following amendment to the original resolution was offered:

Provided, That not exceeding five hundred dollars shall be expended in the purchase of cups, to be distributed as premiums.

Which amendment was agreed to, and the resolution was then adopted.

The resolution of Mr. Bollman, relative to procuring the Patent Office Agricultural Reports, and seeds to be forwarded to each organized society in this State, was taken up and adopted.

On motion of Mr. Bollman, it was

Resolved, That a committee be appointed to report on the best means of establishing an interchange of seeds, plants, &c., between the county associations and the State Board, with leave to report at the next annual meeting of the Board.

Messrs. Orr, Hall, McConnell and Bollman were appointed said committee.

Mr. Holloway offered the following resolution:

Resolved, That the thanks of this State Board be, and they are hereby tendered to the Presidents and executive committees of the Agricultural Fairs of the States of New York and Ohio, in inviting the President of our State Board to

attend their great Fairs of 1851, and their kind and courteous attention to him during his visit, and for the valuable reports presented to this Board; and in return, we hereby instruct our President to invite the executive officers of the States of New York and Ohio to attend our State Fair next fall.

Which was unanimously adopted.

Mr. Dennis submitted the following resolution:

Resolved, That the Board earnestly recommend to the pomologists, horticulturists and farmers of this State, a cordial support of the Western Horticultural Review, published at Cincinnati, Ohio, as a very able and valuable work, and the only one of this character published in the west.

Which was unanimously adopted.

Dr. Warder, the editor of the Horticultural Review being present, returned his acknowledgments in an interesting speech on the utility of Horticulture, and on its intimate connection with farming.

The following resolution was adopted:

Resolved, That the sum of fifty dollars be allowed John B. Dillon for his services as Secretary of this Board for the past year.

Mr. Nelson moved that the members of the State Board, and delegates from county societies who may be members of the Legislature, and other farmers, meet on every Saturday evening at 7 o'clock, during the present session of the Legislature, in the Hall of the House of Representatives, for the purpose of discussing agricultural subjects.

Which was unanimously agreed to.

The business having been completed, Mr. Murray moved that the Board adjourn without day.

Before putting the question, the President addressed the Board, congratulating them on the strong evidences exhibited of the utility of the law which gave existence to the Board, and these county associations so rapidly forming over the

whole State. These were its first beginnings, and its future usefulness could easily be seen in them. That their efforts would be cordially responded to by the Legislature, and the people of the State, he did not doubt.

The Board then adjourned *sine die.*

JOSEPH A. WRIGHT, *President.*

JOHN B. DILLON, *Secretary.*

CIRCULAR.

INDIANAPOLIS, June 4, 1851.

The Indiana State Board of Agriculture, at its late session, adopted a resolution by which the President and Secretary of the Board are required to collect, for arrangement and publication, particular information concerning the present condition of the agricultural interest of the State; and, also, reliable opinions, from authentic sources, respecting the magnitude to which that interest may be increased by the introduction of methods of farming more thorough, systematic, and profitable, than those methods which now generally prevail.

At the proper time, with the aid of county or district societies, county organizations, and county fairs, we shall be able to hold a State Fair that will place Indiana in a distinguished position among the first agricultural States in the Union. But, it will be of little advantage to our agricultural interest, to have, at some point in the State, a great parade, to be called a Fair, if, at the same time, our county organizations, and our citizens generally, are not prepared and disposed to co-operate in the work.

It will be seen, by the law which is published with this circular, that some inducements are offered for the organization of county or district societies. They may receive the whole amount of tax assessed and collected annually, in the county, upon menageries, circuses, theatrical performances, or other shows. In some counties of the State, this tax, it is estimated, will amount annually to the sum of fifty dollars. In other counties it will probably amount to the sum of one hundred dollars. The sum will be subject to the order of the county or district society, to be paid out in premiums, &c.

By a vote of the State Board it has been determined to hold a State Fair at some time in the fall of the year 1852. The organization, proceedings, and success of county or district societies, will have great influence on the action of the Board at their meeting in January next.

If the county or district societies will forward to the State Board, before the first of December next, full reports of their proceedings and prospects, with any other facts or suggestions that they may think proper to communicate, the Board will be enabled to lay before the next Legislature an interesting and valuable report concerning the agricultural resources of Indiana.

The General Assembly will, we doubt not, authorize the publication and distribution of a large number of copies of the first report of the Indiana State Board of Agriculture. It is the design of the Board to make this report full, useful, and authentic; and interesting to citizens of the State, and to strangers abroad.

In order to carry into effect, as far as practicable, this design of the Board, the undersigned, very earnestly and respectfully, request the county or district societies, and gentlemen who may receive this Circular, to furnish from their several counties information upon the points contained in the following questions or upon any one or more of those points that may fall within the scope of their experience or observation.

Communications may be addressed to "the Secretary of the Indiana State Board of Agriculture, Indianapolis," at any time before the first of December, 1851.

JOSEPH A. WRIGHT,
President of the Board.

JOHN B. DILLON, *Secretary.*

QUESTIONS.

1st. WHEAT.

What are considered the best varieties in use? State the methods of preparing the ground—preparing the seed—time of seeding—quantity of seed used per acre—average yield per acre—time of harvesting—manner of securing the crop—usual place of market—prevailing price during the present season—remedies for Hessian flies, and Weevils.

2d. CORN.

Name the favorite varieties in use—the manner of preparing the ground—time of planting—number of times and depth of plowing—average product per acre, and cost of production—place of market, and prevailing prices during the present season,

3d. OATS, RYE, AND BARLEY.

State the quantity of seed used per acre for these several crops—the average yield per acre—the prices paid during the present season.

4th. GRASS.

In making meadows, what grasses are esteemed the most valuable? State the quantity of seed used per acre—quantity of hay cut per acre—cost of production per ton—places of market—prices per ton during the present season—methods of fertilizing meadows.

5th. DAIRY.

What is the average yearly produce of butter or cheese per cow—comparative cost per pound of making butter and cheese—treatment of milk and cream—mode of churning—of putting down butter for market—average prices of butter and cheese.

6th. NEAT CATTLE.

What is the cost of raising till three years old—usual price at that age—value of good dairy cows in spring and fall?

7th. SHEEP AND WOOL,

Are large or small sheep more profitable, either for mutton or for their fleeces? Cost per pound of growing coarse or fine wool. Is wool growing profitable?

8TH. HOGS.

What are considered the best breeds, and the best methods of putting up pork, and curing bacon and hams—prices of pork and bacon during the present season?

9TH. HEMP.

What is the average yield per acre, and cost of production per pound?

10TH. POTATOES.

Name the most profitable varieties—common system of planting, tillage, and manuring—average yield per acre—cost of production, and market prices during the present season.

11TH. FRUIT CULTURE.

Name the different varieties of fruit—the methods of cultivation—the quantities produced—the best varieties to keep for winter use, or for exportation—the usual prices in market—the best methods of transplanting, budding, grafting, &c.

12TH. SOIL, TIMBER, &c.

State the prevailing character of the soil of the county—the crops to which it is best adapted—the different kinds of forest trees. Is the land mainly rolling or level? What portion of it (if any) cannot be brought under cultivation? State what is regarded as the most profitable rotation of crops. What are the different kinds of farm crops, or agricultural productions? Have you any reliable information or statistics of the aggregate annual amount of any staple products sold, or produced in the county? If so, give the same. What are esteemed the best manures, and the best time and manner of their application.

13TH. WET LANDS, IMPROVEMENTS, &c.

What methods are used in ditching, or draining and reclaiming wet lands? What is the best and cheapest method? Have any considerable improvements been introduced in your county during the past two or three years in the modes of farming, in the kind of crops, in agricultural implements, or in stock?

14th. COUNTY OR DISTRICT SOCIETIES.

Give the names of the officers and members of the county or district agricultural society—the date of its organization—a brief account of its proceedings, including addresses, premiums, and any other particulars respecting its history that may be deemed interesting.

PLAN

FOR THE ORGANIZATION AND MANAGEMENT OF COUNTY OR DISTRICT SOCIETIES:—ADOPTED BY THE INDIANA STATE BOARD OF AGRICULTURE.

1. *The Officers of the Society* shall consist of a President, Vice President, Treasurer, Secretary, and a Director from each civil township in said county or district, who, together, shall constitute a Board of Directors, for the general management of the affairs of the society; they should be elected annually by the members of the society, and hold their offices until their successors are appointed.

2. *Members of the Society* must be residents of the county or district, and pay the sum of one dollar annually to the Treasurer.

3. *Competitors* for premiums must be members of the society.

4. A list of the articles for which premiums are to be awarded by the society must be published in a newspaper, or in handbills, at least one month previous to the day of the exhibition.

5. All articles offered for premiums must be owned by the persons offering the same, or by members of their families; and products of the soil, or manufactured articles, must be produced or manufactured within the county or district.

6. Awarding committees of three persons each shall be annually appointed by the directors of the society, for judging the different classes of articles offered in competition, and awarding premiums for the same.

7. The awarding committees must comply with the provisions of the law, requiring competitors for premiums on crops and other improvements, to furnish full and correct statements of the proceeds and expense of culture or production, &c.

8. Competitors for premiums on crops shall be required to have the ground and its produce accurately measured by not less than two disinterested persons, whose statements must be certified in writing.

9. Premiums on grain and grass crops shall not be awarded for less than one acre, and on root crops, not less than one-fourth of an acre; the whole quantity produced on the amount of land specified shall be measured or weighed — root crops to be estimated by weight, (divested of the tops,) 60 pounds to be considered a bushel; the grain crops to be weighed according to the statute weights of this State—the rules in relation to other crops and productions to be agreed on by the directors of the society.

10. The annual exhibitions of the societies must be held at some period between the first of September and the first of November of each and every year. The premiums on crops may be awarded at a later period, if thought necessary.

RESOLUTION

CONCERNING REPORTS FROM COUNTY OR DISTRICT SOCIETIES:—ADOPTED BY THE INDIANA STATE BOARD OF AGRICULTURE.

Resolved, That the following rules shall be observed by county or district societies in preparing the reports required by the third section of the law, to be made annually to the Board, at its meeting in January:

1. A copy of the printed list of premiums offered and awarded by the society, together with the abstract of the Treasurer's report.

2. The statements of successful contributors for premiums on crops, and other improvements, detailing the mode of tillage or process of the improvement, &c.

3. A report by the President and Secretary, giving a general account of the proceedings of the society, the number of its members, and the prospects of its progress and usefulness, together with copies of addresses delivered on agricultural subjects, &c.

4. A statement of the principal kinds of agricultural productions of the county or district, and, as far as practicable, the aggregate amount of the same; also the average yield per acre of the principal crops for the past season—the value or current price of the products in market, together with the towns or places where principally sold, and all such other information as may aid the State Board in preparing a statistical table of the products of such county or district.

REPORTS

FROM

COUNTY SOCIETIES.

ELKHART COUNTY.

REPORT OF THE ELKHART COUNTY AGRICULTURAL SOCIETY.

To the President of the Indiana State Board of Agriculture:

In compliance with the law for the encouragement of agriculture in this State, the undersigned has the honor to submit the following report:

The Elkhart County Agricultural Society was organized in the early part of last summer, 1851, according to the "plan" recommended by the State Board.

E. M. CHAMBERLAIN, President; N. SMILEY, Treasurer; and C. L. MURRAY, Secretary; with a Board of Directors.

The first annual Fair was held in Goshen, the county seat, on the 24th and 25th days of October, and was numerously attended from all parts of the county, and from the neighboring counties both in this State and Michigan. The awards of premiums and reports of committees were as follows:

LIST OF PREMIUMS AWARDED.

HORSES.

Stallions over 4 years old—

1st best—Irvin Vincent,	$3 00
2d best—G. P. Rowell,	2 00
3d best—O. Stotts,	1 00
1st best under 4—S. H. Weyburn,	3 00
2d best under 4—Elias Purl,	2 00
3d best under 4—M. Stiver,	Diploma.

Draft Horses.

1st best—Lewis Hoops,	$3 00
2d best—Isaac Abshire,	2 00
3d best—H. Pearson,	Diploma.

Carriage Horses.

1st best—M. M. Latta, (donated to the society)	3 00
Second best—J. Stockdale,	1 00

Single Horses.

1st best—Dr. Kendall,	2 00
2d best—M. M. Latta, (donated)	1 00
3d best—A. Sparklin,	Diploma.

Breeding Mares.

1st best—Conrad Cast,	3 00
2d best—Peter Fetters,	2 00
3d best—J. Caton,	1 00

Colts under a year old.

1st best—Peter Fetters,	1 00
2d best—J. Caton,	Diploma.

Best one year old Mare.

James Caton,	1 00

CATTLE.

Bull over 4 years old—

1st best—Robert Alford,	$3 00

Under 4 years old—
1st best—Wm. Vesey, - - - - - $3 00
2d best—Wesley Carnell, - - - - - Diploma.
Milch Cows over six years old—
1st best—Christopher Cart, - - - - - 3 00
2d best—J. M. Cox, - - - - - - 1 00
Under six years old—
1st best—Henry Pearce, (donated to the society) - - - 2 00
2d best—Thomas Todd, - - - - - - 1 00
3d best—Benjamin Crary, - - - - - Diploma.

Working Cattle.

1st best—J. W. Violett, - - - - - - 3 00
2d best—O. Stotts, - - - - - - 2 00
3d best—Thomas Van Horn, - - - - - 1 00
Best breaking team, 7 yokes—
Samuel Hullinger, - - - - - - 3 00

SHEEP.

Over four years old—
1st best—Abshire & Blanchard, - - - - - 3 00
2d best—Henry G. Davis, - - - - - 2 00
3d best—Violett & Latta, - - - - - 1 00
Under one year old—
1st best—Matthew Rippey, - - - - - 2 00
2d best—J. W. Violett, - - - - - 1 00

HOGS.

Over two years old—
1st best—Peter Fetters, - - - - - 2 00
Under two years old—
1st best—F. F. Funk, - - - - - 1 50
Pigs under nine months old—
1st best—L. P. Knight, - - - - - 1 00

FARM IMPLEMENTS.

Plows.

1st best—No. 5 Long's Patent, George P. Rowell, - - - 3 00
2d best—D. H. Cline, No. 4 Long's Patent, - - - 2 00
3d best—G. P. Rowell, same patent, - - - 1 00

Two-Horse Wagon.

1st best—G. W. Warner, - - - - - - - - $3 00
2d best—Thomas Miller, - - - - - - - - 1 00

Farm Gate.

1st best—Abner Blue, - - - - - - - - 1 00

FRUIT.

Apples.

1st best—Stern E. Bronson, - - - - - - - 1 00
2d best—B. F. Cathcart, - - - - - - - - 50

Pears.

1st best—Sterne Bronson, - - - - - - - - 1 00
2d best—J. W. Violett, - - - - - - - - 50

Peaches.

1st best—J. Andrews, - - - - - - - 1 00

Grains.

1st best samples Wheat, Polish, China, and Soule, David Gutheart, 50

Corn.

Best red and white, M. Stiver, - - - - - - - 50
Best Tappannahanock, J. Loner, - - - - - - 50
Best red and white Pop, F. Clay, - - - - - - 50

Bunch Beans.

Best variety, J. Freeman, - - - - - - - Diploma.

Potatoes.

Best Sweet Potatoes, M. Stiver, - - - - - - 25
Best Irish Potatoes, S. Dierdoff, - - - - - - 25

DOMESTIC MANUFACTURES.

Coverlets.

No. 1, Mrs. L. Sherwin, - - - - - - - 50
No. 2, Miss C. Martin, - - - - - - - 25
No. 3, ——— ———, - - - - - - - Diploma.

Quilts.

No. 1, Mrs. Noble, (no premium, not manufactured in the county.)
No. 2, Mrs. D. Howell, - - - - - - - - 15
No. 3, ——— ———, - - - - - - - - Diploma.

Linen.

Mrs. D. B. Mather, (donated,) - - - - - - - $1 00

Carpet.

Mrs. Sherwin, - - - - - - - - - 1 00

Mens' Caps.

Mrs. Vesey, - - - - - - - - - 1 00

Harness.

A. B. Grubb & Co., (donated) - - - - - - - 75

Saddles.

No. 1, W. Lightfoot, (no premium, not manufactured in the county.)
No. 2, A. B. Grubb & Co., (donated,) - - - - - - 1 00

Shoes.

No. 1, F. F. Clark, (donated) - - - - - - 75
No. 2, Wm. Shepherd, - - - - - - - - - 50

Leather.

J. Fitzpatrick, - - - - - - - - Diploma.

Rope.

Mr. Staver, - - - - - - - - Diploma.

Horse Shoes.

No. 1, A. Brown, - - - - - - - - - 25
No. 2, J. Derry, - - - - - - - - - 15
No. 3, N. Odell, - - - - - - - - - - 15

Fork, Shovel and Ladle.

Mr. Bottorff, - - - - - - - - - Diploma.

Cheese.

J. M. Hopkins, - - - - - - - - Diploma.

Butter.

Mrs. A. Blue, - - - - - - - - - - 25

Fur Hat.

J. W. Walker, - - - - - - - - - Diploma.

Breast Chain.

M. Bashor, - - - - - - - - - - Diploma.

Cabinet Furniture.

No. 1, B. G. Crary & Co., - - - - - - - - 1 00
No. 2, J. Truesdale, - - - - - - - - - 50

Wine.

No. 1, Stern E. Bronson, - - - - - - - - - 50
No. 2, Michael Bashor, - - - - - - - - 25

J. H. Dewees.
Wm. Newell.
Wm. M. Doolittle. } *Committee on Manufactures.*

The reports of the several committees ordered by the Board to be published, are as follows:

REPORT OF THE DISCRETIONARY COMMITTEE.

To the President and Members of the Elkhart County Agricultural Society:

The undersigned, discretionary committee, whose duty it has been to inspect—awarding premiums or assigning diplomas for the same as the case may require—all articles not classed among those coming within the province of any of the regular committees, respectfully present the following as a report of their action in the premises:

PREMIUMS AND DIPLOMAS AWARDED.

S. Brunson, for eight Poland Chickens, - - - - Diploma.
A. McCulloch, one red Turkey, - - - - - Diploma.
Miss Benjamin Matchet, best collection of mineral specimens, - 50
Mrs. Rumsey, second best collection of mineral specimens, - Diploma.
Mrs. M. M. Latta, jar of preserved Peaches, - - - Diploma.
Mrs. Jewett, Oil Painting, - - - - - - Diploma.
Mrs. E. M. Chamberlain, largest number Canary Birds, - - - 50
Mrs. J. H. Mather, neatest bird cage, - - - - - 50
Mrs. Truesdale, pair Canary Birds, - - - - - Diploma.
Mrs. E. M. Chamberlain, best specimen Lemon tree, - - - 50
Mrs. E. G. Chamberlain, second best specimen Lemon tree, - Diploma.

John Fitzpatrick, Bear skin, killed and dressed in the county, . . Diploma.
Mrs. E. M. Chamberlain, specimen coral formation, - - - Diploma.
Dr. Dunning, specimen cone from a Cedar tree, - - - Diploma.
Mrs. G. W. Fosdick, parlor show case, - - - - Diploma.
Miss Eddy, elegant fancy Portfolio, - - - - - Diploma.

Amongst a general variety in the line of fancy needle work, paintings, drawings, &c. &c., might be mentioned some beautiful specimens which we learn were deposited in the collection by Mrs. Irish, Mrs. Jewett, Mrs. A. Blue, Mrs. Peck, Mrs. Earl, Miss F. Smith, Miss C. Sherwin, Miss McClure, Miss M. E. White, &c.; and the display in this line, together with that presented in the Horticultural department, the undersigned would especially designate as being highly creditable to the skill, taste and handiwork of the ladies of Elkhart county.

The committee would add that they have aimed to include in their umpirage all articles that can properly come within their province; but from the neglect of persons exhibiting, to have things in all cases properly entered, some may have been omitted.

Respectfully,

R. Lowry,
Abner Blue,
T. G. Harris,
S. H. Weyburn,
D. B. Mashek,
} *Committee.*

REPORT OF THE COMMITTEE ON FRUIT.

The committee on Fruits, gentlemen of this Society, beg leave to congratulate you upon the display that has been made upon your tables in the Pomological department. Fruits have been here exhibited, gentlemen, which in extent of variety and excellence of quality, far excel any of the exhibitions of older countries, and of Horticultural societies of long standing. Apples are here exhibited varying in size from that 20 oz. Pippin down to the little red Romanite, the excellence of whose qualities, as tested by your committee, defy competition. The best varieties of fall and winter Pears have been shown, which in size and every good quality, are rarely seen in the eastern markets, and when offered, are there grasped with avidity, at the most extravagant prices. Grapes, too, almost the spontaneous production of your soil, have here been exhibited of such size and beauty of appearance, and richness of flavor, as well might rejoice the heart of Isabella Gibbs, that her name is attached to such magnificent clusters. The superiority of fruits in Elkhart county, gentlemen, is to be ascribed to the excellence of your climate, the proper constituents of your soil, and above all to the careful and judicious selection of the varieties introduced by her pioneers in the science of Horticulture. And here in the first report upon fruit in old Elkhart, should the most honorable mention be made of Reuben Brunson, a zealous pomologist,

who early emigrated from Western New York to Ohio, thence to central Indiana, and from thence to this county, where he was in advance of any other in sowing the seeds and planting the varieties, the fruits of which this day has been spread before you. He rests from his labors, and has a place amongst a few honored names in that standard work, Downing's American Fruit Book.

Many various and important reasons might be urged, gentlemen, why the cultivation of the best fruits should here be greatly extended. A full supply for home consumption would add greatly to our happiness, and be one of the best preservatives of health from the malaria which at times surrounds us. We have a climate and soil that will ripen to perfection all the various fruits of the temperate zone. The Newtown Pippin, the Virgulieu Pear, and many other fruits of the first excellence which are failing in the eastern States, and are there mourned over as lost, as old worn out varieties, may here be seen blushing in all their pristine excellence, and produced too, by the easiest and most careless cultivation.

Many in that less favored region are procuring at great expense, the various chemical analyses of their fruits and trees, that they may restore, although at great expense, to the soils of their orchards those necessary elementary constituents of which they have long been exhausted; and the prices returned from the sales of a tree and others, well evince how amply science can be rewarded, in combating the various difficulties of their fruit position. More, however, in that region begin to admit that their Pomona's occupation is gone, and begin to turn their eyes to the virgin soils of the west for their supply of fruits; and the prices offered in the eastern markets for the best selections, from the best varieties, would surprise any one who had not previously investigated the subject. Besides, see in the central position of Indiana, with her navigable waters, and the means of transportation now being constructed in every direction around, the best facilities, the easiest, safest, and cheapest access to all the other markets of the Union, the copper mines, Minnesota and New Orleans. We need never fear that these various markets will soon be glutted by the production of *good fruit*. The demand for such ever has, in all countries, exceeded the supply. Should such, however, ever be the case, modes of preservation have already been discovered, by which the various fruits of Massachusetts and New York, of the growth of 1851, have already been sent and tested in their full ripened freshness and excellence in the markets of London, of Cuba, and of San Francisco.

In view of all this, and of much more that our limited time will not allow us to mention, your committee would recommend to the farmers of Elkhart county, no longer to allow the cultivation of fruit to be one of the subordinate appendages of their agricultural operations. Let them avail themselves of the instructions sought to be conveyed by the writings of a Downing, a Thomas, a Barry, and other horticulturists of the age. Plant and cultivate largely the various fruits, adopting them among the staples of their productions, and they will have the exceeding satisfaction of beautifying with their orchards the whole face of the country, adding largely to the saleable value of their farms, and of annually receiving a sum total for their products, such

as they would rarely be able to procure from the exclusive growth of wheat or short horns.

In conclusion, gentlemen, your committee would award as follows: [See list of premiums awarded.]

Much interest has been added to this exhibition, gentlemen, by the display of fruits here exhibited by Mr. Elisha Osborn, an eminent cultivator of fruit and fruit trees in the adjoining county of Cass, Michigan. He has excelled any other exhibitor in the greatest number of the best standard varieties. The extent of his varieties, together with the fairness and beauty of their appearance, have elicited the commendations of all observers. They beg leave to recommend a special premium to be tendered Mr. Osborn.

Respectfully,

H. H. Fowler,
Axel Sparklin,
M. Weybright,
Committee.

REPORT OF THE COMMITTEE ON FARM IMPLEMENTS.

To the Elkhart County Agricultural Society:

The undersigned, committee on Farm Implements, respectfully report that they have had under consideration the various farming implements presented, and in their judgment award as follows: [See list of premiums awarded.]

The committee regret the very limited amount of farming implements presented for inspection; especially they regret that none of the more improved kinds of farming implements were offered for public inspection, such as Clover Hullers, Thrashing Machines, Wheel Cultivators for Wheat, Cultivators for Corn, Seed Drills, &c. &c. The committee, however, flatter themselves that a spirit of emulation will be excited among the people of Elkhart county, by the present fair, which will, another year, bring forward and introduce to public notice every useful farming implement extant, and also to show that the people of Elkhart county are determined to come fully up to the standard of improvement which the progress of the day demands.

Cephas Dunning,
Christian Sherock,
S. Webster,
Committee.

Communications were read from different distinguished citizens of the State, who were invited to be present at the fair. The following from Dr. E. W. H. Ellis, as it contains much that is encouraging to such enterprises is deemed worthy of a place in this report:

INDIANAPOLIS, OCT. 20, 1851.

Gentlemen:—It would afford me great pleasure, did my official duties permit, to mingle again with the farmers of old Elkhart on the interesting occasion of their first Agricultural Fair.

Having been a resident of the county almost since its organization, I have had the pleasure of marking its advancement, step by step, to its present high state of prosperity; and it has been peculiarly gratifying to me, in every comparison made with her sister counties, to find that in fertility of soil, variety of productions, and the enterprise and intelligence of her agriculturists, she suffers no disparagement. Indeed the contrast presented in many portions of the State most forcibly reminds me of the tasteful residences, capacious barns and granaries, and stake-and-ridered fences of your prairies, the blooming orchards planted all through your forests, the school houses scattered here and there for the convenience of all, and the healthful, happy countenances of your young men and maidens.

The privations and toils of the early settlers, though fresh in our recollection as if but of yesterday, are happily surmounted. There is no more lying down with the loaded rifle at your sides as some of you can speak of—no more doling out of stinted rations to the family, until game could be secured, or the father returns from the distant mill—no more following of Indian trails from one scanty trading house to another—no more wagoning your surplus produce an hundred miles to market. These are all past, and the anchorite who comes to your borders to do penance has mistaken his latitude. If he seeks a field for unrequited toil, for suffering and privation, or, if resolutely resolved on starvation, he must go beyond the limits of Elkhart county. It cannot be done where barns and granaries are groaning with the products of the earth, and where fields of grain are measured by the mile.

While it is gratifying to observe the impulse given to the cause of agricultural improvement throughout the State, it is particularly so to see your county leading off at the north with a zeal and determination that must result in lasting benefit. Every profession has profited by association—merchants, mechanics, lawyers, doctors and the clergy—and why should not equal advantages accrue to the farmer? In agriculture the humblest member may contribute to the knowledge and gratification of all. He may introduce a new variety of fruit—a new specimen of grain for culture—a new implement of husbandry—a new cross of stock, or a new method of tilling the soil, and thus add to the general good. Why, it is but a few years since an enterprising German from Pennsylvania settled on Elkhart Prairie, and in the face of all opposition, cavil and doubt, declared that clover would grow on the prairie. He verified the fact by successful experiments, and the annual crop is now worth thousands of dollars, and the farmers every where, not only figuratively, but literally, "live in clover."

The meetings of your society, and your annual fair, not only enable you to compare notes with each other, and thereby arouse a healthy spirit of emulation, but attract visiters from abroad, and enable you to profit by their example, their advice and their specimens. You promote a feeling of fraternity,

a spirit of friendship—and you encourage all, not to plod along as their fathers have done before them, but to strive to excel in this noblest of all professions.

In another year the State Agricultural Fair will be held at this point, and it will afford me great pleasure on that occasion to see old Elkhart—for that's the name I always give her—fully represented; not only by those who come to see the products of others, but by those who can contribute to the interest of the exhibition by the products of their own farms and workshops. On that occasion "the latch string will be out," and we shall have such a reunion as I trust will be gratifying and profitable to all.

Thanking you for your kindness,

I am very truly your friend,

E. W. H. ELLIS.

The annual address was delivered on the last day of the fair by the Hon. J. R. WILLIAMS, of Michigan, and was one every way worthy the high reputation of the author, the theme, and the occasion. There had been two addresses previously delivered before the society, one by its President, the Hon. E. M. CHAMBERLAIN, and the other by one of its most active and efficient members, Dr. M. M. LATTA. These addresses will all be furnished in connection with this report, if copies can be procured in season.

Our society was organized under the most trying and discouraging circumstances. It seemed almost impossible to awaken an interest in its prosperity among that class, whose interest it was to promote. A few friends of the cause, mostly engaged in other pursuits, kept it alive by frequently meeting together and consulting in regard to the best and most practicable means of enlisting the co-operation of our farmers and thereby establishing the organization upon a sure basis. No pains were spared. And after all our efforts, and considerable expense, and though late in the season, the society come to the conclusion there was but one experiment left, and that was, the agricultural exhibition, the details of which are given above. That was considered the turning point in its prospects for usefulness, if not for life itself. Arrangements were immediately made, though with many in great doubt as to the result. If the society succeeded in getting up a pretty

good exhibition of live stock of different kinds, and a good variety of the products of our soil, and could awaken a corresponding interest among our agriculturists and mechanics, its foundations were considered sure and steadfast. I am happy to say the first exibition and its results, were more than realized. The premiums offered, amounted, in cash, to something like one hundred and fifty dollars. The cash awards made were about one hundred dollars. The number of competitors, with their articles for premiums, of course are not shown in this schedule. There was a great increase of members of the society and of course a corresponding increase to the funds in the treasury, besides numerous individual donations. The number of members is about one hundred and sixty. After paying the current expenses, and the expense of the fair, there were fifty-seven dollars in the treasury, and about eighteen dollars back on fee of membership. Forty-five dollars were received out of the county treasury in pursuance of the law.

I have thought it necessary to make this exhibit of the financial condition of our society, to meet the requirements of the law, and to preface them with the few explanatory remarks for the encouragement of other counties about forming agricultural societies.

I shall endeavor to answer the questions propounded by the State Board, as far as my information will admit, and in their order as near as possible, and in as concise a manner as is consistent with my obligations and the nature of the information sought for.

1. Wheat.—This is the most important product of Elkhart county. The statistics of the last census shows its amount in the aggregate at one hundred and seventy-five thousand two hundred and eleven bushels, being above all other counties in the State, except Laporte, and nearly equal to that when we take into consideration the amount of land under cultivation. We have the usual varieties in wheat growing districts, among which I will enumerate what we call the

Wabash, the Red-chaff bearded, several kinds of White-flint, the Early-ripe, the Hutchison, (which I think is the New York White-flint, it being christened among us after the name of the man who introduced it,) the Club, the Mediterranean, the Soule, the White Blue Stem, together with some new varieties lately introduced, such as the China, Polish and the Australian. You may put down the last six kinds, under the denomination of new varieties. In regard to the best of those kinds which have been thoroughly tested among us, I answer with a great deal of diffidence, as every farmer, according to experiments, location, soil, manner of tillage, &c., has his own opinion, and what I have to say will be but the opinion of one out of thousands. I am safe in saying this, however, that all kinds, from some cause or other, deteriorate or "run out" after many years saving, some sooner than others. The Wabash is a smooth chaff red wheat, and has stood the test well. The Red-chaff bearded, next. They are still favorites with many, after ten or fifteen years' trial. The old varieties of White-flint are considered unsafe and are not in vogue to any great extent. The Early-ripe is a red wheat which prevails to a considerable extent under different names in the north part of the State, and, though yielding a very fair increase, is sown principally on account of its early ripening qualities. It is generally the first, though sown at the same time with others, that falls before the sythe. The Club wheat has been cultivated among us for seven or eight years. It is a beautiful variety of white wheat, and for several years uniformly produced the most abundant yield. The straw is of a rich gold color, its head when fully matured and perfect, is formed by three rows of grain on a side, rounding off at the top like a club, from the similarity to which in shape, it derives its name. It was introduced into the county by an old gentleman by the name of Peleg Brown. He brought it from his former place of residence, (mixed with other wheat,) near Cleveland, Ohio. Many of our best farmers think it still the most productive variety ex-

tant. It stands the winter well, but is more subject to the ravages of the fly than many other varieties. It does the best of late years on new ground. The Mediterranean stands the fly well, but the rigors of some of our winters, poorly. It weighs more than other kinds, but turns out less to the acre. But what is worse than all, our millers uniformly dock us so much on the price of this wheat as to drive it out of use before any general practical test was made of its productive qualities. Our merchants will not purchase it at all for shipment in bulk. The Hutchison has proved very productive, equal many seasons to the Club. The grain resembles the latter wheat very much in size and color, but it is of the bearded class. The heads are long, and when perfect, shows three rows of grain on a side. The Soule and White Blue Stem have been lately introduced among us. They are of the white species, smooth chaff and are recommended as very productive. The grain is large and heavy; of the two, so far as they have been tested, the latter seems to be in most favor; the White Blue Stem, I may safely say, promises to crowd the old varieties out of use. It was first introduced into the United States through the Patent Office, while under the charge of that eminent citizen and agriculturist of our own State, Hon. H. L. Ellsworth. In the report of the State Agricultural Society of New York, in which State it was first tried, it is recommended as the best and most productive variety in cultivation, uniformly taking the premium at all the county fairs. The China and Poland wheat were procured from the Patent Office, by Mr. David Cathcart, an enterprising farmer of our county, and put in circulation last fall for the first time. So far as he has tested them, he is well satisfied with their yield. But further experience is necessaay before we can speak of their adaptation to our soil and climate. The Australian wheat was sown for the first time in our county last fall. It was brought from New York city by Messrs. Mercer and Thomas, two of our merchants. It is said to yield on Long Island, sixty bushels to the acre. If it

sures half of that with us it will be enough to bring it into immediate and general use.

I have given at some length the varieties of wheat now in use among us, and it now remains for me to answer the other questions of the Board in connection with their cultivation.

The most general and approved plan of preparing our ground is by summer fallowing; every other mode is an exception to this general rule among wheat growers. If time and duties permit, the manure goes out on to corn ground in the spring; if not on to the corn ground, then on to the summer fallow, and plowed in with the first stirring immediately after corn planting; it is then pastured until the month of August and stirred the second time, lies a week or two, sowed and the wheat either plowed in with the cultivator, shovel plow, common plow, or harrowed in, between the first and 20th of September. If the ground is stirred three times, and plowed deep, and the wheat put in early, with a drill or a cultivator, it is all the better. And a still better plan is, to have your fields so laid off, that by regular alternate cropping of grains and clover, you can be able to put in your wheat crop upon a clover sod every year. With this kind of tillage, with what manure could be added, our lands would grow more and more productive. The quantity of seed averages about a bushel and a peck to the acre; some sow more and some a little less, according to the nature of the soil and time of sowing. The average yield of the crop in our county last year could not have fallen short much of twenty bushels to the acre. Our prairie and thick timbered lands went as high as from twenty-five to thirty bushels, while our openings ranged along between ten and twenty per acre. Our time of harvesting now is much earlier than it was ten or twelve years ago, for what reason I am at a loss to determine; it begins the last of June and extends to the middle of July. The wheat is principally cut with the cradle, bound and shocked in the usual manner. It is suf-

fered to stand four or five days according to the State of the weather, and hauled into the barn or stacked, unless threshed with traveling machines in the field. Whenever or wherever thrashed, it is always done with a thrashing machine, and the straw thrown in piles for the use of stock through the winter. The price of thrashing with two hands and half the team furnished, ranges from three to three and a-half dollars per hundred. The usual places of market are, wherever a flouring mill is found or a dry goods' store established in the county—and they are not few or far between. Wheat is purchased by merchants in Goshen, Waterford, Wyland's mills, New Paris, Benton, Middlebury, Bonnyville, Bristol and Elkhart, consisting of the principal towns in the county. Great deal of wheat is purchased at Elkhart and Bristol, on the banks of the St. Joseph and on the line of the great railroad between the two lakes, and sent off to Rochester to be manufacturd and christened for the New York market, as "prime Genessee flour," and other brands of like import which goes to outsell the home manufactured article in the same market; of course, they buy nothing but clean white wheat. All the surplus wheat and flour takes the outlet of the St. Joseph river to Niles and thence to Detroit on the Michigan Central Railroad, or to Toledo by the Northern Indiana Railroad. The price of wheat with us was lower last fall than it has been for many years, and would have been a great deal lower had it not been for the completion of the two railroads above mentioned. Fort Wayne and Lafayette, before their completion, used to leave our wheat market on the St. Joseph, in our county fifteen to twenty-five cents per bushel, and last year while we were getting from fifty-three to fifty-six cents for our wheat, their market was ranging from forty to forty-eight cents. This will show that the producing class is benefitted by these improvements more than any other class of our citizens.

2. Corn.—The corn crop of our county was estimated in the last census statistics, at three hundred and forty-two

thousand two hundred and thirty-five bushels. It will be perceived at once, comparatively speaking, ours is not a corn growing region, although from the amount of land devoted to this crop we might favorably compare with some counties in more congenial latitudes. The manner of preparing the ground is to haul out all the barn-yard manure we can make during the summer and winter, and scatter it over the field or over the most unproductive part, if we have not enough to reach further, plow the ground up early and deep, give it a going over once with the harrow, lay it out into rows from three to four feet apart each way with the shovel plow, plant along the first part of May, from three to four grains in a hill, cover tolerable deep, and then trust to the Lord for the "early and latter rain" to send forth its green and tender blade in due season. Some of our experimental farmers are trying the effects of plaster on the hill as soon as the corn is cleverly out of the ground; so far as it has been tried, it works well; about a table spoonfull to the hill is all sufficient. The corn is gone into, first with a harrow, sometimes a two horse one—straddling a row, and sometimes with the cultivator or shovel plow. The main thing is to get the start of the weeds let the instrument be what it will, and to follow it up through the whole season until you have exterminated the whole number—and their name is legion. Good farmers among us keep passing through their corn one way after the other from the time it first comes up, without hardly any cessation, until it begins to tassel out and shoot forth its ears. I will mention in this connection, that an improved mode of tillage begins to obtain among us, especially on heavy clay soils, of plowing up our corn ground late in the fall, subjecting it to the fertilizing effects of freezing and thawing through the winter, and then cross plowing in the spring followed by the cultivation above described. Owing to the extraordinary wet spring, followed by a long parching drought, our corn crop the past season would average but little over half a crop—say about twenty-five bushels to the acre. The varie-

ties used for seed is the common gourd seed, yellow and white—the former preferred for fattening animals, and the latter for table use. The yield is about the same. It was selling last fall for twenty-five cents per bushel. From the great scarcity I should think the price in the spring would be about thirty-seven cents. We have no particular place of market for this grain.

3. Oats, Rye and Barley.—Our oats crop is considerable, being estimated at ninety-nine thousand two hundred and ninety-nine bushels, excelled by only seven other counties in the State. We prefer sowing after corn, from one and a-half to two bushels to the acre. I tried ten acres with two bushels and a-half and harvested a dwarfish, spindling crop, which satisfied me I had sown half a bushel too much. This crop we put in early in April; if we don't, we run the risk of a poor yield. Last season owing to causes in the weather, I have already stated, there was a short crop—in some localities a great deal of straw and but little oats; I should think the average yield not over twenty-five bushels to the acre. There is no particular mode for putting in this crop, other than the one followed from the beginning; the ground is plowed and the oats harrowed in, and harvested and thrashed like our wheat, except that instead of curing it in the shock, it is suffered to lie in the swath until cured, before shocking. The price ranges from eighteen to twenty-five cents per bushel. There is but little rye and still less barley raised in the county—of the former but about fifteen thousand bushels and of the latter little less than three hundred.

4. Grass.—In the first settlement of the county the opinion predominated among farmers, that the chief reliance for hay would be upon the wet marshes which skirt the small streams and lakes in various parts of the county. Those contiguous to the first settlements were therefore eagerly entered, and their heavy, and to a considerable degree, nutricious crops of wild grass converted into hay. For years no other kind of hay was thought of, except "wild hay." It

sold readily for three to four dollars a ton in our villages. There was no certainty of ever having any other kind until our low, heavy timbered land could be cleared out for that purpose. As the early settler had to clear the uplands first, to breed his family and grain his stock, the chance of having timothy hay was considered in the far future. As wheat fell from one dollar to fifty cents per bushel, our prairie farmer began to feel the necessity of turning their attention to raising more stock, and an experiment of clovering a small patch or so was tried, and to their astonishment, yielded a luxuriant growth. From that it spread into our oak openings or barrens where the idea of raising hay on their dry, sandy soil was never dreamed of. But the experiment of the prairie farmers became general all over the county; field after field went down to clover, followed by about two or three pecks of plaster to the acre, and the consequence is the land has a little respite from the ceaseless round of grain crops which was fast running them down, the wild hay of the wet marshes has almost entirely disappeared from market, and in its place may be found an abundance of the tame article for five dollars per ton. In all our clay lands the practice is to mix the clover with timothy or red top; it yields heavier crops and is generally preferred. When we sow for fertilizing purposes we put on clover alone with plaster; there should be about five quarts to the acre, with one bushel of plaster the first, and a half bushel every subsequent season; it ought to be turned under in the fall after the third yearly crop, with as heavy second growth as possible, and seeded down to wheat. The average yield of our grass crop last season would be about one and a half tons to the acre. We have no methods in vogue for fertilizing meadows among us, other than that provided by plastering and manuring. I have no doubt but what the greater portion of our marshes could be drained, put down to tame grass, and furnish pastures that would endure for ever, or crops after crops of hay without deteriorating in the least. The benefit they have already been to the

first settlers of our county, in the way I have mentioned, is incalculable.

5. Dairy.—The average yearly produce of butter and cheese per cow in our county, I cannot answer; I don't think there is a regular planned dairy in the county, and yet the manufacture of butter for home consumption amounts to upwards of one hundred and eighty-eight thousand pounds; of cheese to little upwards of eleven thousand pounds. There is none made of either article for exportation. The price of butter in our villages is from six to ten cents during the summer and fall; in the winter it brings trifle more. The prospects, with our railroad facilities, and the increase of grass lands, are, that butter making and packing will soon assume a prominent place in the business of farming. The price of cheese is about eight cents per pound; the most of it is imported.

6. Neat Cattle.—The cost of raising cattle until they are three years old, is from eight to ten dollars. They sell from twelve to fifteen dollars; cows, fresh milk, sell from ten to fourteen dollars. The number of cows in the county, is about four thousand; other cattle, six thousand.

7. Sheep and Wool.—There seemed to be great competition in the purchase of wool among us last season. Prices ranged from thirty to forty-five cents from native breeds. The consequence was that the price of sheep went up from seventy-five cents to one dollar and one dollar and a quarter a head. As will be seen from the premiums awarded on sheep at our fair, some blooded Merinoes have lately been imported into our county by a few enterprising farmers on or about Elkhart prairie. The Merino, crossed with native breeds, are considered the most profitable for wool and mutton together. Number of sheep is put down at seventeen thousand; wool, at forty thousand pounds.

8. Hogs.—Hog raising in our county is but a small business compared to other portions of the State. We export but very little pork in consequence, the prices having of late

years been far from remunerating. The last season it was up higher than was ever offered for exportation—from three and a-half to four dollars, according to weight. We have all kinds of breeds of hogs among us, but principally the long-nosed pointer sort, with legs to correspond; the marauding propensities of this "lean kind" make them easy to keep. When it comes to "root pig or die," they carry the instrument to do it, and when it is necessary to get over a fence into their neighbor's good things, they show a wonderful agility in climbing in, and, if hard pressed with dogs or clubs, in jumping out. But when it comes to fattening in a pen, pouring in corn seems a waste of grain, as it takes an immense quantity to lay even the hair; that being the nearest idea of *grease* you can gather from their looks after a month's feeding. But, added to all their *running* qualities, thank Heaven, they are fast running out. The Ryefield is taking the place of this *In*field sort, with a mixture of Berkshire, China, &c. The pork business, with our increased facilities of transportation, must rapidly augment from this time onward. The number of hogs raised in the county is about thirteen thousand.

9. Potatoes.—Our potatoe crop is rising of fifty-three thousand bushels. We raise but few sweet potatoes. We have among us a great variety of Irish potatoes, among which I will mention the Mechanock, common Red, Blue and White Pink Eye, Peach Blossom, "Whig Potatoe," Kidney, Galena, Cow Horns, Merino and Rohan. The white Mechanock is the general favorite, if untouched by the rot; they seem more subject to that disease than any other kinds, which has lessened their cultivation very much in the last few years. Our potatoe crop the last season, like our corn and oats, was but little over half a one. I got but about seventy-five bushels off the same ground which yielded one hundred and fifty the year previous. The average yield in a good season I am not able to tell. We generally aim, if possible, to get our potatoes on to our newest land. If they do not turn out as

much to the acre as on old well manured ground, they are certainly great deal better flavored. The potatoes generally raised down in the southern part of the State, in this respect, are not worthy to be named on the same day with those grown on our new sandy soil. The market prices for the last three years have ranged from eighteen to twenty-five cents per bushel. It is the belief, they will be worth thirty-seven cents in the spring, and perhaps more.

10. Fruit.—I shall say but little on this subject in addition to what is said in the report on fruit, submitted to the society on the day of our fair, and published above. A good variety of fruit is the chief pride of our agriculturists. And our young and beautiful fruit trees, to be found on nearly every clearing, whether of late or long standing, is no less the admiration of the stranger, than the pride of the settler. To such an extent has this variety of the choice fruits in America been promulgated and cultivated among us, that for several years back, our young men have made a profitable business of carrying the scions from our thrifty trees by loads, into the southern part of this State, through parts of Ohio, Missouri, Kentucky, Illinois, Wisconsin and Iowa, grafting as they went wherever they could get jobs of the kind to do. The benefits thus conferred on the fruit growers of other localities, by the diffusion of our unsurpassed varieties of fruit, are incalculable. Our orchards, as a general thing, are just coming into a full bearing state. Last year our expectations of an abundant crop were sadly blasted by the severe freeze we had late in the spring, and which was so destructive to fruit over all the western States.

In conclusion permit me to give my opinion, that since the application of clover and plaster to our lands, the fertilizing qualities of these ingredients have imparted new vigor to our soil and new hopes to their cultivators. Under our system of cropping, we could not close our eyes against the fact staring us in the face upon every year's experience, that our lands were running down. By alternate cropping with grass,

and the application of all the manure we can gather, we not only check the decrease in fertility and product, but we are enabled to turn our attention to more profitable business than raising grain, and that is in raising of stock, or dividing our attention between the two. All kinds of stock, horses, cattle, sheep and hogs have advanced in price to a considerable extent, on this ground mainly—especially young animals. An ordinary suckling colt last season would sell readily for twenty dollars, that two or three years back would not have brought fifteen dollars. It is not unfrequently the case that a man with a pretty good brood mare is offered twenty dollars for the chance of the colt as soon as she is known to be with foal. Good work horses range from sixty to one hundred dollars. The number of horses among us is rising of three thousand. With the present attention paid to this description of stock, this number will soon be doubled. It is my opinion also that as our farmers become more able, they improve in the general management of their farms. Give us a little more age and we will equal, according to our natural and artificial advantages, in all the substantial elements of wealth, any county in the State.

The county was organized in 1830, and the population at that time was but nine hundred and thirty-five; since that time it has increased twelve thousand; showing upwards of sixty-seven thousand acres of improved land, with the value of real estate over two millions of dollars. The face of the country is generally undulating, embracing every variety of soil and timber, all but a small portion first rate land. Half of the county is covered with heavy timber, such as beech, maple, walnut, hickory, poplar, oak and cherry; the remainder is oak barrens or prairie. It might surprise some to be informed that considerable of our walnut lumber is sent into the New York market. The county enjoys water power in all directions to an unexampled extent, the most of which is improved as fast as the wants of the people require. Nothing is wanting now among us but a good system of common

schools, where every man's child can be educated,—the circulation of useful agricultural papers and books,—the further encouragement of the State in behalf of this great and long neglected interest, and the hearty, zealous co-operation of our working men in the efforts of that society which now submits its first annual report for your consideration.

C. L. MURRAY, *Secretary.*

ADDRESS

Delivered before the Elkhart County Agricultural Society, by Hon. E. M. Chamberlain, August 2, 1851.

Mr. Editor:—In submitting the following extract from my hastily written address to the press for publication, in compliance with the vote of the Elkhart County Agricultural Society at its last meeting, I regret that I have not had time to revise and prepare it more suitably for the public. But so it is, and I therefore submit it without correction or alteration, excepting in the curtailment of a portion of the introductory, and less practical part of it.

Very respectfully,

E. M. CHAMBERLAIN.

And now, fellow citizens of Elkhart county, let me congratulate you upon the fact, that in the organization of this society, you have taken the first step in a movement calculated more effectually to promote your true interests, than any thing else that could be done. Elkhart county is, in a peculiar manner, an agricultural county, and this step has been taken in the right direction. Our success, and the great benefits to be accomplished, must depend upon our perseverence. And in order to attain that end, we all have something to do. We all can do something. And if we all do all we can, ultimate success will be certain.

Before entering more in detail into a consideration of the specific objects we seek to accompliah, allow me to at least call your attention to a few facts relative to subjects of a more general character, which it seems to me our farmers in northern Indiana have already too long and too generally overlooked. Have we not confined ourselves too exclusively to a single article of production? Could we not, even under the circumstances by which we have been

surrounded, more profitably have devoted a less proportion of our soil to the growing of wheat, and by diversifying our productions, insure an increase both of the certainty and amount of the reward for our labor? In our soil there is a great variety. Has not Providence designed that its productions should be equally varied? Undoubtedly. And this fact is attested both by the diversity of our wants, and the adaptation of our different soils to different products. Why then persist, year after year, in an effort to raise wheat from a soil more peculiarly adapted to some other product, such as corn, or rye, or barley, or hemp, or flax, or grass? and perhaps fail in the effort three times in every five? Will it be replied that it is because there is no market for any thing but wheat? If so, the best remedy I can suggest is, still again to multiply the diversity of your products, and turn them into horses, cattle, sheep and hogs, wool, yarn, cordage, thread, cloth, beef, pork, lard, butter, cheese,—any of the thousand different articles which the wants of man require, and to which the markets of the world are open.

Again—let me ask, is it not time for us, now at any rate, to give good heed to those things, when by the improvements which are going on all around us and in our midst, to increase our facilities for reaching those markets, we may select whatever market we choose, east, west, north or south.

And even if our soil is not adapted to a great variety of products, the experience of others, of which we may avail ourselves, and scientific research, have placed it in our power to know exactly what kind of manure and culture are requisite to give it this adaptation. Our country abounds in excellent publications of every variety, full of experience, and knowledge, and wisdom on these subjects. And I regard it as among our first and most important duties, to take measures for the diffusion of this knowledge, by the circulation of these publications every where. I trust that before the next anniversary of the organization of this society, every member of it will be a subscriber to some agricultural paper. We must, if we sincerely regard our own true interests—we must avail ourselves of the aid of this mighty auxiliary, the *press*, which is now throughout the civilized world so happily enlisted in the cause of agriculture.

We must not, because this year and last year we have been blessed with abundant harvest, we must not therefore conclude that it is our own skill that has made it so, and that the cause of agriculture is prospering and progressing well enough in our own hands, without this aid from other sources. No, possibly for the next three years, the same crops, under the same degree and kind of culture, may fail. And it is the part of wisdom in us, by heeding her suggestions, to prepare for and guard ourselves against such an emergency as well as may be, by multiplying the kinds of our productions; adapting our crops to our soils, and by proper manuring and culture, even adapting our soil to such crops as would be most profitable to cultivate.

To acquire and enable us practically to avail ourselves of all this knowledge, is indeed the primary object of our organization.

In this first attempt at a public address to our society in its present incipient state of existence, I think, so far as anything like a detail of our first

duties are concerned, I cannot more appropriately suggest them, than by reiterating here some of the questions propounded to us for answers by our State Board of Agriculture. These questions suggest subjects for inquiry and consideration of most manifest importance.

1st. WHEAT.—What are considered the best varieties in use? State the methods of preparing the ground—preparing the seed—time of seeding—quantity of seed used per acre—average yield per acre—time of harvesting—manner of securing the crop—usual place of market—prevailing price during the present season—remedies for Hessian flies, and Wevils.

2d. CORN.—Name the favorite varieties in use—the manner of preparing the ground—time of planting—number of times and depth of plowing—average product per acre, and cost of production—place of market, and prevailing prices during the present season.

3d. OATS, RYE, AND BARLEY.—State the quantity of seed used per acre for these several crops—the average yield, per acre—the prices paid during the present season.

4th. GRASS.—In making meadows, what grasses are esteemed the most valuable? State the quantity of seed used per acre—quantity of hay cut per acre—cost of production per ton—places of market—prices per ton during the present season—methods of fertilizing meadows.

5th. DAIRY.—What is the average yearly produce of butter or cheese per cow—comparative cost per pound of making butter and cheese—treatment of milk and cream—mode of churning—of putting down butter for market—average prices of butter and cheese.

6th. NEAT CATTLE.—What is the cost of raising till three years old—usual price at that age—value of good dairy cows in spring and fall?

In connection with the subject of the dairy and neat cattle, let me read you a brief extract or two from a letter from the Hon. Amasa Stetson, an eminent farmer and dairyman of the State of Maine. These extracts are in answer to the following among other questions:

1st. What number of cows do you keep?

2d. Their quality and breed?

3d. Your mode of selecting them?

4th. How many pounds of butter do they average a year?

5th. How many quarts of milk will make a pound of butter?

7th. How do you dispose of the refuse of your dairy, and what is its value?

8th. How do you keep your cows?

STETSON, June 29, 1850.

DEAR SIR:—I received yours of the 14th inst. by due course of mail, propounding a series of questions in relation to the profits and management of my dairy. I should, with pleasure, have answered it before, but being obliged "to hold the plough or drive," I have hardly found till now, a rainy day, in which I could spare the time to write you.

1st. I keep fifty cows and heifers—which number I have kept for two years past.

2d. My cows are mostly of native breed, and about an average of native cows as to size. Their average value is $25. I have a few half Durhams; but, so far as I have had experience, the Durhams are rather ordinary milkers.

3d. My mode of selecting cows is, to purchase the best I can find for sale, paying as high as forty dollars for a single cow, if I am satisfied she is a good milker, and not too old. I have raised some cows, and I used frequently to buy heifers; but I think both bad economy, as a general rule. You must wait too long for heifers to come to maturity. A cow does not yield her full flow of milk till she is at least six years old—and the difference in the profits of a cow from six years old to nine, and of one from three years old to six, will more than pay for a good cow. I know of no *rule* by which to select cows for milkers: but I have learned by my experience to rely mainly on my own judgment. There are some general points, however, that may be relied on, such as small head, slim neck, rather light fore-quarters, deep hind-quarters, well spread, good sized teats, and well apart—and, by all means, yellow skin.

4th. I cannot answer definitely, from the fact that we use what butter, milk, and cream we need in our large family, and only keep an account of sales from our dairy. Our family averages at least twelve, beside transient company, and we consume at least the products of four cows. In 1848 my sales amounted to $1,581 31—in 1849, to $1,511 08. My cows averaged the third week in June, present, a fraction over 7¼ lbs. of butter each—the fourth week, ending this day, 8 lbs. each.

5th. It will take from 8 to 10 quarts of milk to make a pound of butter, and about half the quantity to make a pound of cheese.

7th. The buttermilk and refuse milk we convey in a spout from the shop and cellar, to a vat in the pig pen. Its value depends much on the price of pork, say $4 00 to each cow, at least enough to pay all the girls' help about the house and dairy.

8th. I keep my cows at pasture, during the season. I usually give them in the fall, after the full feed becomes short, one half-peck to a peck of potatoes each, daily—with pumpkins enough to give the milk a good color.

In this answer of Mr. Stetson there are several matters worthy of special notice. First, the profit and productiveness of a skillfully managed farm, even in the comparatively inhospitable climate of Maine. Secondly, the industry and economy, the practical observation and strict application which are essential, and when attended to are only essential to certain success.

7th. Sheep and Wool.—Are large or small sheep more profitable, either for mutton or for their fleeces? Cost per pound of growing coarse or fine wool. Is wool growing profitable?

8th. Hogs.—What are considered the best breeds, and the best methods of putting up pork, and curing bacon and hams—prices of pork and bacon during the present season?

9TH. HEMP.—What is the average yield per acre, and cost of production per pound?

10TH. POTATOES.—Name the most profitable varieties—common system of planting, tillage, and manuring—average yield per acre—cost of production, and market prices during the present season.

11TH. FRUIT CULTURE.—Name the different varieties of fruit—the methods of cultivation—the quantities produced—the best varieties to keep for winter use, or for exportation—the usual prices in market—the best methods of transplanting, budding, grafting, &c.

12TH. SOIL, TIMBER, &c.—State the prevailing character of the soil of the county—the crops to which it is best adapted—the different kinds of forest trees. Is the land mainly rolling or level? What portion of it (if any) cannot be brought under cultivation? State what is regarded as the most profitable rotation of crops. What are the different kinds of farm crops, or agricultural productions? Have you any reliable information or statistics of the aggregate annual amount of any staple products sold, or produced in the county? If so, give the same. What are esteemed the best manures, and the best time and manner of their application.

13TH. WET LANDS, IMPROVEMENTS, &c.—What methods are used in ditching or draining and reclaiming wet lands? What is the best and cheapest method? Have any considerable improvements been introduced in your county during the past two or three years in the modes of farming, in the kind of crops, in agricultural implements, or in stock?

These inquiries are full of practical suggestions, which if properly attended to, cannot fail both to communicate valuable information to the State Board, and to lead our own attention to the investigation of facts which will give a new impulse to the interests of agriculture among us.

The second section of the act for the encouragement of agriculture, points out the means relied upon for rendering our organization efficient. It provides for the award of premiums, as the direct stimulus to action, and is as follows:

"SEC. 2. That it shall be the duty of the several county or district societies which may be formed under the provisions of the preceding section, during the continuance of this act, annually to offer and award premiums for the improvement of soils, tillage, crops, manures, improvements, stock, articles of domestic industry, and such other articles, productions and improvements as they may deem proper, and may perform all such acts as they may deem best calculated to promote agricultural and household manufacturing interests of the district, and of the State; and it shall also be their duty so to regulate the amount of premiums, and the different grades of the same, as that it shall be competent for small as well as large farmers to have an opportunity to compete therefor; and in making their awards special reference shall be had to the profits which may accrue, or be likely to accrue from the improved mode of raising the crop, or of improving the soil, or stock, or of the fabrication of the articles thus offered with the intention that the premiums shall be given for the most economical mode of improvement; and all persons offering to

compete for premiums on improved modes of tillage or the production of any crop or other article, shall be required, before such premium is adjudged, to deliver to the awarding committee a full and correct statement of the process of such mode of tillage, or production, and the expense and value of the same, with a view of showing accurately the profits derived, or expected to be derived therefrom."

To carry the object here aimed at into effect, the duty devolves on the directors of the society, of appointing awarding committees for judging the different classes of articles offered in competition, and awarding premiums for the same.

But we must not conclude, gentlemen, that our duties all terminate with the mere external organization of our society. It must have *life, energy, soul.* It must be animated and moved by that internal vital principle, without which all the mere dead forms we may weave upon it, will only amount to so many inert incumbrances, which in the end will but accelerate its dissolution. To this end we must bring to our aid *intelligence—science,* whose light having now penetrated almost every department of nature, and opened the storehouses of her hidden treasures, has filled the civilized world with all the brilliant discoveries and improvements which have in a very few centuries past so astonishingly changed its condition. Agriculture has felt its energizing power. The same amount of labor once required to support a single family from the soil, will now support a whole community. And in the same ratio that improvements have been and are made, in the same ratio they may still and ever progress, indefinitely.

We shall hence learn to give more heed to the cause of education generally, than we have done. We must educate our sons and daughters with a view to this great end—the development of the means of true progress in all things involving our interests, and this great interest more than all. All other interests will necessarily follow in their order.

I hope it will not be deemed out of place, if I here press this subject—the cause of education—upon your special attention. How strangely, in relation to it, have the ends and aims of the civilized world been perverted. If we educate a son, it is with a view to establishing him in some *profession;* if we educate a daughter it is to the end that she may be a *lady*—or in other words, that both may learn to shun, if not despise, the arts and habits of industry. We shall never come right on this subject till we set out under the full conviction that every farmer and mechanic should be thoroughly educated. Then we may safely leave the professions to take care of themselves, and my word for it, there will then be less drones and vagabonds to infest society. A good education is not all that is necessary to enable a man or a woman to fill their appropriate sphere in society—that is, what is commonly called a good education. But this should be added: a good education, with a knowledge of the arts, and habits of industry.

Our children, then, if their genius and circumstances naturally prompt them to it, can much more readily acquire the several professions, if needs be, after they have learned how to work, than they can learn how to work, if

people be, after going through a course of almost aimless indolence, they have acquired a smattering of some profession.

Allow me, gentlemen, in conclusion, again to congratulate you, and our fellow citizens of Elkhart county generally, upon the commencement of the great work you have undertaken, and the auspicious circumstances under which it has been commenced. May this work go on and prosper in your hands, to that state of fuller development and maturity which we are all so well convinced our highest happiness and prosperity demand.

ADDRESS OF HON. JOSEPH R. WILLIAMS,

Delivered before the Elkhart County Agricultural Society, at its first annual Fair at Goshen, Saturday, October 25, 1851.

MR. PRESIDENT, AND GENTLEMEN OF THE ELKHART CO. AGRICULTURAL SOCIETY:

This is all wrong. I ought not to be here. You ought not to have invited me here. A miller ought not to be invited to address farmers on their peculiar employment. Each trade or pursuit should be taught and impressed practically by its own followers. Each man should not only be an inquirer into all the arcana of his own pursuit, but should be a teacher and a master. However, at great inconvenience to myself, I consented to appear before you; for whoever does not feel an interest in agriculture, does not feel a sympathy with his race; whoever does not regard the condition and progress of agriculture as vital and important, is indifferent to the comfort, the civilization and the progress of mankind. I should as soon think of regarding with indifference the genial influence of the sun and the showers, or the purity of the atmosphere we breathe, as to be indifferent to the condition of agriculture. I offer you my aid and sympathy, however feeble, although I can hardly claim to be practically a farmer. A few months since I was inquired of, if an agricultural society was organized in the county in which I reside? I answered, no. We were waiting for the farmers who had the most directly at stake, to meet and organize. If you wait for that, said the inquirer, and he was himself a distinguished farmer, you will wait forever, for I never knew a society formed that was not started by traders, professional men, county officers, &c., while the farmers came in slowly. This is shameful, if true; and doubtless, too often shamefully true. I care not under what auspices your society is organized. I congratulate you on its existence. Here let me exhort every man within hearing of my voice, to co-operate in the work before you with earnestness, with sincerity, and a mind open to the reception of knowledge. It is a melancholy fact, that while the followers of nearly every other pursuit have been eager to adopt every new principle or discovery, and vied with each other in the acquisition and trial of every new invention, the practicers of the great

trade of trades, the great science of sciences, the great art of arts, agriculture, have too often wilfully closed their minds to instruction, and the reception of knowledge. When we see a fellow being bereft of sight or hearing, our liveliest sympathies are awakened; yet many of us walk around the world doggedly closing our eyes or refusing to exercise half our senses, half our faculties, and in fact the recipients of no more true knowledge and ideas, than though half our perceptions were lost. The law by which all perfection is obtained, is your law. That law is perpetual study and ceaseless toil. Whoever teaches that a farmer leads a charmed life, and is exempt from the performance of every rigid duty, like other men, teaches folly and a falsehood. Look in the water, it will reflect you back in symmetry and strength, or in deformity and weakness, just as you are. So you can neither gain nor lose respectability by your profession, but only from the fidelity and dignity with which you pursue it.

It would give me the most pleasure to consume my hour in the discussion of some single topic. But this is no place to convey thorough, detailed instruction. It is a place, however, where we can spur, and prompt, and stimulate and encourage each other. Suffer me therefore, to throw out desultory, practical hints. The studying, and the thinking, and the working, you must do elsewhere. Learn to learn—learn to work without waste—learn to study; then the farm you tread upon, the home you live in, will afford a field more prolific in instruction than the library, the gallery, or the museum.

Listen, then, to hints rather than an elaborate essay. I scorn rhetoric and flattery on the one hand—I hope to escape dullness and discourtesy on the other. I shall try to speak truths.

First, I regard it as the duty of farmers to have more communion with each other; to make and to seek opportunities to compare and communicate with each other. Mechanics work in close proximity to each other. They are all the time engaged in sharp competition. They profit alike by each other's blunders or each other's successes. Merchants meet each other hourly in crowded thoroughfares, and on the exchange. What one knows, all can readily know. Inevitable failure and ruin often follow an obstinate adherence to an old track, when time, toil and expense are saved by the adoption of the new. Not so with farmers; necessity does not throw them together. They have few chances for consultation, and still fewer chances for correction of blunders. It takes a whole year to correct a single error. But few experiments can be tried in a lifetime. An error in planting the crop, is an error which may plunge the farmer into pecuniary ruin. How much it becomes us therefore, to consult everywhere, with all men, and on every fitting occasion, that we may be guided in all our enterprises by all existing light and knowledge. There are men, it is true, whose converse with nature is richer in instruction than the teachings of men. A man can study a lifetime in a single garden, and delve only on the surface of the great mysteries of nature. It is true that each farmer walks every morning into a vast palace, compared with which the crystal palace is mere tinsel—a bauble. Each trembling dew drop, glistening on the tiniest spire of grass, excels in brilliancy and exceeds in usefulness the great diamond, Ko-i-nor. Realities are all around him—not the shams—not

the impostures,—not the hollow artifices of the gentleman, [illegible] bringt freshness, fragrance, vitality, and is rarely laden with pestilence. Each exertion which affords vigor to the arm, by sympathetic action communicates vigor to the intellect. Thus health ought to clothe the whole man. Yet living among such glowing scenes, operated upon by such instructive and healthful influences, farmers as a class, take the world over, in their habits, opinions, and aspirations, have most doggedly tramped and wallowed along on the dead level morass of complacent conservatism. If farmers had constant and unremitting communion with each other—if each mind was open—if each faculty was sharpened—each mistake promptly corrected—each agricultural invention communicated, explained and understood, farmers would be marked by the same characteristics as the most keen, energetic and vigorous in any other pursuit. Fortunately fairs, periodicals, discussions, are supplying the schools which the exchange, the counting room, the store, the workshop, the street, the wharf and the deck perpetually supply to other men.

It is of no use for any man in any walk of life, in any pursuit, to hope for success, unless his views of the objects of life are well considered and rational. Success cannot be measured by accumulation of wealth. More accumulation may cost health and peace; then, such success is punishment, such success is poison. There is a worm in the core. Accumulation may be attended with ceaseless and harassing anxieties and cares. It is then just as far from being success. The man who earns three hundred dollars per annum, and saves a quarter of it, and has a sounder mind in a sounder body on the thirty-first day of December than he had on the first day of January, is an independent and successful man. The man who has an income of $10,000 and expends $11,000 is a slave, and draws behind him a chain of trouble as heavy and exhausting, as the clanking chain of iron. "A ploughman on his legs is higher than a gentleman on his knees." The man who goes to California and procures his tens of thousands, is not successful if there or on his homeward voyage, he incurs risks which deprive him of it all; or if his frame is penetrated with diseases which shorten a miserable existence, or if he incurs habits of idleness, recklessness and extravagance, which render him an object of scorn, instead of respect, forever after. Poor he may return, and penniless, yet if he retains health, has profited by experience, has a clearer vision and higher capacity for the future, then he is successful. That man is successful in any calling whose desires fall within his income—who is able to render every work of duty a charm and a pleasure; who measures the respectability of his pursuit by the spirit and dignity with which he pursues it; who, with a cheerful temper and a clear head, keeps a mastery over his business and over himself; who is not whirled into the delirium of rapacity or ambition; who rejoices in the triumph of his genius, his energies and his will, rather than in acquisition of gold, or empty applause, and whose home is a home indeed, glowing with all the associations which cluster round that old familiar Saxon word, *home*, instead of a waste, a prison house, or a broker's shop.

The first object of a farmer should be to secure a home. A homestead in this country is within every man's reach, even in youth. It may be that to

obtain it easily, a man may be obliged to sacrifice some idle habits, some vanities, some frivolous cravings. The acquisition of a future home should be an object of greater pride than riding and shooting, smoking, chewing, drinking or dressing. To this object his time should be devoted by an iron rule, varied only by the exercise of a rational discretion. If a man goes to a show on Monday, frittera away his time on Tuesday, because it storms or looks like a storm, goes to a political caucus or some jubilee on Wednesday, and involves himself in a law-suit on Thursday, I humbly opine he has only Friday and Saturday left to devote to his duties. But I pledge you my word that such a man, so desperately driven, (for human nature cannot stand everything) will have a pain in the head, or a pain in the toe, or be sick all over, on Friday or Saturday. It may be asked, should a man have no leisure—should he be always a drudge? Oh, no. He should, however, regulate his own affairs before he regulates the affairs of the nation; he should take care of his own independence, before he crows much on the independence of the nation. I fancy a commonwealth will not perish, whose every citizen is independent, and his affairs well ordered and thrifty. A man's business and family should be of primary importance. Pleasures, pastimes, festivals, neither profitable perhaps, nor instrucive, should be of secondary importance. Duties at home should be observed first, calls abroad last. Leisure must be earned berore it is enjoyed. "Fly pleasures and they will follow you."

It is no less important that a man's family should be guided by a rational policy, than that he should be so governed himself. If a man's wife grasps everything she craves, irrespective of ability to pay for it—if she seeks to deck the head instead of store the brain—if she prizes the ring upon the finger more than the muscle of the arm, and the delicacy of complexion which attends idle effeminacy, rather than the ruddy bloom of health which cheerful exertion yields—if she supposes that distinction and respectability consist in dress and complexion, and furniture, and idleness, and not in a hearty devotion to every womanly duty, in doors or out of doors, at home or abroad, if such are the views of the wife and family, the man will never prosper. If a man have such a wife, he may as well leap from the bridge, or fly to California. His nose is on the grindstone, and he will never get it off. He is doomed forever, to debt, embarrassment and despair. He may as well pitch to some familiar tune the lamentation in Job, "Man is born unto trouble, as the sparks fly upward," and habitually hum it as his morning melody and his evening chant. I think I hear a murmur from some fair captious hearer, "he would make us all slaves." Far from it. Be a woman, instead of a piece of animated millinery. Be a woman, instead of a bauble. Be a creature of capacity, of thought, of action, of life. Follow out these ideas, and your children will not prove mere danglers, your boys popinjays, your girls toys; but you will leave behind you, living, active, sentient beings, to cheer and animate the world, instead of drones to burden it.

I would not deride either beauty or accomplishment. What I detest is, that on the altar of vanity, a home shall be sacrificed, a husband rendered bankrupt, the best capacities of our nature destroyed. The truth cannot be

consumed, that too many farmers are ruined by their families. On the other hand, the instances are numerous, where the farm is saved, and the husband's ruin averted by the energy, industry, and thrift of the women at home.

The institutions of many of the States happily render the homestead sacred. Neither the heartless and brutal grasp of rapacity and extortion, nor the ruthless brush of misfortune, nor fell disease, nor sudden calamity, can deprive the family of a homestead once honestly acquired. There is one spot in which the family can nestle, one secure resting place, allowed by the Providence of God, and sanctified by the laws of man. That spot should be made more attractive than all other haunts and resorts. The more comfortable and healthy, the more cleanly, the more fascinating to the eye it is rendered, the more firmly it is protected and girt around, the more it will be cherished.

Our countrymen, too many of them, are restless and migratory. Although we are nearly all emigrants, I think you will agree with me that one migration is enough. It would become us as a people to heed the wisdom contained in the doggerel of Poor Richard,

> "I never saw an oft removed tree,
> Nor yet an oft removed family,
> That throve so well as those that settled be."

When a man buys and sells residences, and rudely severs their every clinging association, as he buys and sells horses, and vessels and merchandize, he sacrifices many of the liveliest charms of labor, conquest and possession. A man pitches from abode to abode, with no more affection than the crow in its flights, rests now upon one dry limb and then upon another, his labors must be aimless and cheerless, and he voluntarily deprives himself of much of the keenest satisfaction which life and trial afford. One of the first objects then of a farmer, should be to secure an eligible farm, which he is willing to cultivate, develop, embellish and enjoy as a home in the most comprehensive sense of that term.

Horticulture is embraced as one of the objects of your association. It is too much neglected. While a few pursue it intently and as a passion, the many neglect it. Before urging this topic upon your attention, let me say, if it will afford any encouragement, that I personally made a critical comparison of the fruits and vegetables exhibited at the recent State Fairs at Rochester and Detroit, and I could not avoid the conclusion that the fruits of Michigan excelled those of New York in beauty, health and perfection, though not perhaps in variety. The samples however in both cases were mostly exhibited by amateurs and nursery men. They should have been poured out from every farm house. Many a man leaves a waste around his dwellings, when if he heeded the suggestions of interest, health, taste, or comfort, he would surround himself with a garden and an orchard. Fruit should be cultivated for profit. No expenditure will enhance the value of a farm so much in proportion to the outlay as the investment in an orchard. Fruit is a cheap luxury. The tree is growing, while we are sleeping. Once planted, with trifling, but continuous care, and the bestowal of odd hours from time to time, the orchard rapidly matures. One prolific year repays the whole expense. I last year

raised more than two hundred bushels of delicious fruit; apples, pears, plums, peaches and grapes, in a garden of a little more than an acre, which six years before had hardly a tree of cultivated fruit upon it. You need not fear that the best of fruit will become a drug. The more abundant, the more certain the channels to market. Let me remind you that before all of our children are laid in the grave, cities which can be reached in twelve hours from any part of this county will have grown up containing half a million of Inhabitants, and affording insatiable markets for fruit. We can be prepared to furnish these markets, and enjoy the perpetual profit, or reject it. Fruit should be cultivated for health. Ripe fruit is nutricious, refreshing, and highly conducive to health and longevity. In large cities during the prevalence of cholera, and at critical periods, fruit is forbidden, not so much because ripe fruit is deleterious, as because ship loads of fruit in great markets are gathered and transported before it is ripe. It is rendered palatable by the mellow of incipient decay, and not delicious by mature ripeness. Hence there is an unpleasant acidity, a toughness and staleness in the pulp of much of the fruit sold in towns, which is not found in ripe fruit just plucked from the bough in your own garden with all the glow and flush and plumpness of life upon it. From your own garden you can enjoy a cheap and delicious luxury which a townsman cannot purchase at any price. The cultivation of fruit kindles a taste akin to a taste for the fine arts, and is eminently conducive to refinement, and constantly prompts to the acquisition of varied, curious and profoundly scientific knowledge relative to the laws of decay and growth, the preservation, propagation and development of vegetable life. It will render a home more beautiful, more genial, more attractive—an object I have just endeavored to enforce. What different ideas do we instinctively form of a country dotted all over with luxuriant orchards groaning under their abundance, and a country whose roadsides present a dreary and sterile waste. Let the orchards of a people rival in beauty and brilliancy that which was pictured on the imagination of Milton when he described the garden of our first parents.

> "And higher than that wall a circling row
> Of goodliest trees loaden with fairest fruit,
> Blossoms and fruits at once of golden hue,
> Appeared with gay enameled colors mixt:
> On which the sun more glad impressed his beams,
> Than in fair evening cloud, or humid bow,
> When God hath shower'd the earth; so lovely seemed
> That landscape."

Where the orchard of a century has grappled its roots, we believe the family has grappled also. Owner and orchard we are apt to regard as venerable portions of a venerable country, and the natural progeny of a state where law and industry and taste bear sway.

Some refrain from planting orchards for fear of plunder. You should remember that the same brutal disregard of your rights, which tramples down your crops, and robs your orchards, would rifle your pocket books, and plun-

der your granaries, if it could be done with impunity. Impunity is the rule, not decency, and honesty. If you wait till all mankind have manners, and delicacy, and honor, you will cease to strive to fill your pocket books and granaries, as well as to rear orchards.

If a farm is worth earning, and subduing, and adorning, and occupying permanently, it is worth nursing and preserving. Perpetual improvement instead of perpetual exhaustion of the soil should be the rule of every good farmer.

The most fatal practical error committed by the farmers of our State, is that of exhausting without repairing the soil. Our population should be more deeply impressed as to the folly of recklessly pressing the soil to exhaustion. A majority of our farmers have ploughed, and sowed, and reaped, till their fields now afford a lessened crop. The same process continued, and they will soon afford no crop at all. We observe no proper alternation of crops. We squander and waste great quantities of vegetable and animal matter which ought to be restored to fertilize and fatten our lands. How suicidal our present course is, is shown by a few considerations.

The soil is composed of organic and inorganic substances. The organic, comprises animal and vegetable matter; the inorganic, minerals, matter never quickened by the principle of life. The inorganic matter entering into the construction of either animal or vegetable life, is quite insignificant. After burning, the *ash* that is left shows what is inorganic. The trunk of a tree does not afford two per cent. of ash: wheat straw not seven per cent., and the wheat itself not two per cent. The vegetable, eaten and digested, enters into the composition of the animal: the animal, when mingled with dust, becomes food for vegetable life. Life blooms, thrives, and decays, to become again the renovating principle of new forms of beauty and life. Thus animal and vegetable life is perpetuated. The bones strewed upon the battle fields of Waterloo and Austerlitz become manure for the crops of Belgium and Austria. Horse and rider mingled in indistinguishable dust, become food for the worm or the plant. The material carcass is worth most which weighs most.

"Imperial Cæsar dead and turned to clay,
May stop a hole to keep the wind away."

It becomes us to recognize always this ever ruling and vital truth. Nothing of an animal or vegetable nature, no bone, no offal, no dead animal, no decaying vegetables should be thrown into the running stream, or into the public highway, or burned, or in any way wasted. In the village in which I reside are several families who habitually throw offal, bones, and ashes, all vital manures, into the streets, at more trouble than it would take to place them on their gardens. Could the cabbages speak, they would be taught better. A few days ago, in passing over the Michigan Southern Railroad, I saw the carcass of a dead animal thrown into the woods, a nauseous and offensive object to every passer by, while within a few feet was a fallow field, in which it might have been buried and many rods of ground saved from exhaustion for years. During the same week, travelling by another conveyance,

I passed in a single afternoon as many as three farms, where the cattle were fed in the public highway. The loss of such a miserable course is constant and large. The highway is rendered filthy, and in the night time dangerous, and the farmers lose all the advantages of yarding cattle on their own land. I should not, however, call them farmers, for they will never be farmers, and never own farms, till such a suicidal policy is abandoned. Justice requires me to say, that in other parts of the State there are men who understand this subject so much better, that they yard their sheep in hurdles on different parts of their fields each night, in order to secure and extend the whole fertilizing effect. All organic substances as well as barn yard manure should be covered and if possible protected by sheds, till wanted for distribution. A large share of the vitality of all manures is washed away by showers, or evaporated by the heat of the sun. Constant attention to these facts will make one man rich, while constant defiance of them will make another poor. The U. S. Patent Report for 1850, estimates the annual impoverishment by neglect, of one hundred millions of acres of land in the United States, at ten cents only per acre, to be ten millions of dollars. You may start two young men in life with farms of equal size, and equal fertility. One shall save and restore all organic matter to his land. He shall not waste, burn, destroy, nor throw into the running stream any of the elements which enter the composition of animal and vegetable life. The other shall take no heed of this great preservative principle. He shall crop the soil till his crops fail. He shall give it rest, and plough deeper and crop again. He may alternate with exhausting crops, but still the process of deterioration goes on. At the end of thirty years, the farm of the one will bloom with fertility, his annual crops not diminished, and the owner a prosperous man. The farm of the other will be barren, exhausted, and cheerless, himself as exhausted as his soil.

The assumption is sometimes made that this bottom land, or that prairie is so constituted as to need no manure, no renovation. There may be fortunate vallies, where, from the surrounding hills a periodical deposit is made in such happy proportions as to insure perpetual crops. Such facts are full of instruction, warning men to do elsewhere, what is providentially performed in such singular positions by the operations of nature. On the western side of Prairie Ronde in the county of Kalamazoo, Michigan, there are now remnants of heaps of manure, hauled into the woods by the first settlers, because the prairie land was assumed to be too rich already. In other instances barns have been moved away from the manure, instead of the manure from the barns. Yet barn-yard manure contains a dozen elements promotive of, or essential to the production of crops. Plaster, lime, ashes, salt, bones, are valuable manures. Bones make phosphoric acid. Phosphoric acid in an almost inappreciable quantity is as indispensable to the production of wheat as any other ingredient. Did the farmers of Prairie Ronde who carried off the manure and wasted doubtless all the bones, and dead animals and offal, know from a superficial observation of the soil, whether it was or was not destitute of phosphoric acid or some equally subtle or necessary ingredient? The Hon. Reverdy Johnson, of Maryland, purchased an exhausted farm. He had

it analyzed. It was destitute of this ingredient. He applied bone manure, and raised twenty-five bushels of wheat where none would grow before. A soil may be almost clear vegetable deposit, yet if destitute of silica, there will not be consistence and strength in the stalks, insignificant as that ingredient seems. In cotton wool, but one per cent. is ash, and silica is but one twenty-fifth of that one per cent., yet it is a necessary ingredient. It enters more largely into the stalks of the plant, however. An analysis of Indian corn, (the whole plant, leaves, cobs and corn,) shows that it contains starch, gluten, oil, albumen, casein, dextrine, sugar, water, silica, lime magnesia, potash, soda, chlorine, sulphuric acid, carbonic acid, alkaline, and earthy phosphates. Every time you throw away a shovel full of organic matter, you throw away some of these elements—some elements of the corn crop. I think I hear some one inquire—"what of all that? we cannot analyze our soils." That is true, but I can tell you what you can do. You can restore all vegetable and animal matter to the soil. You can stop much of the exhaustion. Once knowing the great law by which life and growth is perpetuated, you can obey and not defy it. In those countries of Europe where population presses close upon the means of subsistence, the systematic preservation of manures of all kinds, is carried to an extent to us almost incredible. As a result, some crops have been doubled; and although their lands have been tilled for centuries, and although an ignorant boor, a mere piece of animated machinery, may work with clumsy and miserable tools, yet crops are obtained twice or three times as large as we obtain from the most fertile virgin soils of the west. In this branch of agriculture we are far behind older and more densely populated countries. The most obtuse observer must have noticed that this country has made rapid advancement in many respects during the last five years. The improvement is marked in the wide introduction of sheep, and of improved varieties. Labor is diminished by the use of improved agricultural implements. More care is taken in regard to breeds of stock, and kinds of seed. Yet these advantages are partially neutralized and lost, by the reckless neglect and exhaustion of the soil, which I have attempted to describe.

Another rule of action, no less important, which should be perpetually borne in mind by the farmer, is a determination to plant no seed and propagate no fruit except that which is tested, pure, sound and prolific: rear no broods of swine, sheep, cattle or horses, but such as are healthy, symmetrical, kind, docile, easily nurtured and sustained; and use no ploughs, drills, cultivators, shovels or other implements except those by which the greatest amount of execution can be effected with the least physical exertion, and least waste of man and beast. The profit or loss from the observance or neglect of this rule of action is constant, perpetual, immense. Here is a man who has some inferior, foul wheat, which he proposes to use for seed. With a little cost and time, not so much cost as the cost of his tobacco for six months, and not so much time as he might fool away at the tavern in a week, he could procure a pure, mature, clean, healthy article of seed. Suppose with his good seed he should raise eight hundred bushels of pure and sound and merchantable wheat, and with the foul seed should raise ten per cent. less of foul and in-

different wheat, worth ten per cent. per bushel less in the market, it would make one hundred dollars difference in the value of the crop. Now, one hundred dollars per annum will, in the course of years, make all the difference between a rich and poor farmer; all the difference between a lucky and unlucky farmer; all the difference between your cheerful, contented, animated, out-of-debt, full-faced fellow, and your growling, envious, malignant, litigious fellow; and it might make all the difference between a neat, educated, well-bred family of children, and a ragged, ignorant, ill-bred family. I do not mean to say that one hundred dollars annually, thus precisely saved, will produce precisely such results; but I mean to say that the policy I indicate leads to, and is capable of producing such results. Let one man take four hogs of the pointer breed. He feeds them sixteen months, and they weigh two hundred and fifty pounds each. His neighbor procures four hogs of the improved breed. He feeds them twelve months, and they weigh three hundred pounds each. One man's pork has cost him four cents per pound, the other man's two and a half cents per pound. One makes a profit, the other a loss. Here is a man who keeps five cows. They are cows, and all cows are cows. He cares nothing for your Devons and Ayrshires. He shrugs his shoulders, and says the milk pail breed is the breed for him. His cows are, however, raw-boned, misshapen, wild looking, long legged beasts, which will hold his horse a long tug in a fair race. A neighbor has two fine limbed, silken haired, healthy, gentle creatures. The last receives more income from two, than the first does from five cows, and is subject to but two-fifths of the expense. A farmer has a stock yard. He always has a pair of long legged, ill-broken, ravenous oxen. They will not work well. They eat much and grow little. His neighbor always has firmly knit, well broken, large, healthy, docile oxen. It costs no more to support them; yet they do twice as much work, and for beef or service would bring fifty per cent. more in the market. Take an orchard. Here is a man who at odd hours quietly pulls out his knife, and clips a dead or superfluous limb. He restores a tree to symmetry here, and eradicates a mean and scrubby one there. He tests the fruit, and if good, but not the best, he procures and grafts the best. He grafts one tree. He quietly slips a bud under the bark of another. At the end of ten years, compare his orchard with that of a neighbor, in whose estimation all trees are trees alike, and one orchard groans under an abundance of delicious fruit, and the other bears a precarious and stinted crop of indifferent, astringent and mean fruit.

The profit of farming is the small surplus over and above subsistence and support. If a man raises an annual crop worth five hundred dollars, and it costs him five hundred dollars, he may be a desperate toiler for life, neither animated by pride nor hope. But suppose in consequence of the observance of the principles I have tried to enforce, he earns six hundred dollars with five hundred dollars expenditure. The whole result of man's toil, his whole condition, his welfare and his hopes are changed. The principle should be a controlling one. Like produces like. There is no necessity of a man's raising fine horses and poor cows, fine hogs and poor sheep, fine corn and poor potatoes. Obey the same great law of nature, and all can be improved alike.

harmoniously, and simultaneously. This great eternal law of nature is ruling the growth and life of all around us. This law will act beneficially with man, encouraging and blessing his labor and care, or if treated with defiance and contempt, it visits him with fearful retribution. Fortune and luck smile upon the successful, say the mole-eyed. The only fortune and the only luck is obedience to this iron law. But to bring out the grand harmonious result, so grateful to the eye, so gratifying to the pride, so profitable to the purse, assiduous, constant, unremitting attention is necessary. A great sculptor had spent months on a work of art after it seemed to be finished. He had altered a feature here, a muscle there, reduced a fulness in one place, had re-touched the ear, the lip and the eyelid. A visitor jeered him on the waste of so much time on trifles. "It is true," said he, "that I have busied myself on trifles; but trifles make perfection, and perfection is no trifle." Let farmers heed the moral.

Cost may at first seem to be an objection. It soon ceases to be. The man who practices on the principle of propagating from the best of seed and the best of stock, soon perceives a great increase in the per centage of profit. He will soon learn that he loses less among cattle by disease and accident, less among crops by blight and deterioration. Such a farmer never needs to vex and worry himself about a market for his surplus. His produce and stock are always sought after. It is a certain and positive value, will always command the highest price, and always pay his debts. His labor all counts, his labor is all productive.

What I have here said belongs to the art of agriculture. There is an art of agriculture, and a science of agriculture. The art consists in culture, in handicraft, skill in known processes, in ploughing, ditching, and harvesting. You may understand the art well. You may deem yourself perfect in it, may have a brawny arm and an intelligent head, but I doubt whether you understand the whole art. The first time you want a piece of ditching done, just hire a professional English ditcher; he will ditch two yards to your one, and will do it neater, straiter, handsomer, than you can, and be less fatigued at night than you are. At night you have learned a lesson from a clod-hopper. Two years since a gentleman from a neighboring county went to the New York State Fair. He considered himself an adept in farming. To him a plough, however, was a plough. He witnessed the work of the most improved ploughs and purchased two, expressly designed and calculated for such work as he wished to perform. He has since informed me that he would not part with them and resume the use of the old ploughs for one hundred dollars per annum. Yet ploughing was just the part of his business he thought he understood. Though his plough was a good plough, the best plough was much better. He learned something in the art of agriculture. Gen. Cass, in his late address at the State Fair, alluded to the fact that when Elisha was taken from the plough and called to a higher trust, he left twelve yoke of oxen in the furrow. It is only by comparing the art of agriculture as it existed three thousand years ago, that we can appreciate the progress of mankind. How miserably feeble must have been the stock, how clumsy and wretched the plough,

where it took twelve yoke of oxen to make a furrow. How slow, too, must have been the movements of such a cumbrous team. One yoke of oxen with a modern plough, probably do the work faster and better. Even in England at the present day it is not unusual to see three, or four, or five horses urged by a driver, attached to a single plough. There is an almost incredible difference among men in what we erroneously consider the very simple art of agriculture. There is all the difference that exists between the Irishman who pulled up the bean because it came up wrong end foremost, and put it back right, and the man who raises seventy bushels of wheat on an acre of land, or takes a seedling and transforms it into a northern Spy apple. In this department fairs, lectures, schools, periodicals, will teach much. With eyes, and ears, and minds open, we can all learn of one another. In the art merely, the handiwork of agriculture, the proudest can learn something of the humblest. Not long since a man came to me to procure specimens and acquire information. He was the last man of whom I would have sought knowledge on any subject. As we were walking he called my attention to some dead pine trees. He observed quietly that if I would employ him, he would set out a row of trees that would live. I observed that it was midsummer, and of course it could not be done till another season. Oh, no, said he, midsummer is the time for transplanting evergreens. He transplanted a row. They all lived, and are flourishing. Yet this ignoramus, as I deemed him, was able to teach me a lesson in an art which I supposed myself to understand. So all the world over, even in the art of agriculture we can and ought to meet with, compare with, and learn of one another.

But it is in the science of agriculture that we know little or nothing. The most profound inquirer is superficial. The day will come when the Leibigs, the Johnstons and Nortons will be deemed tyros in the grand science. The Newton of agriculture has not yet appeared. The earth is a vast chemical laboratory, few of whose operations we comprehend. Take a friction match and draw it down the wall. It ignites. You take your gun, pull a trigger and cause the explosion of a percussion cap. You take a seat in the chair of the Daguerreotypist, and when the sunlight is let upon a polished plate your image is almost instantly imprinted. Those operations are produced by a few simple materials well known. Yet, do you understand it? No. But you understand and appreciate the result. You go into a telegraph office, and wish to correspond with a friend one hundred miles distant. The operator by a few manipulations speeds your message and quick you have the winged reply. Do you understand it? Oh, no! Yet all these results were brought about by the use of a few elements, and by simple and known processes. When the telegraph offices were first opened, I went with a lady into one. The operator, for amusement, called on his friends along the line, asking idle and playful questions. Quick as thought the electric answers vibrated along the wires. She stood in mute amazement. The tear stood in her eye. "It makes me shudder," was the only remark. Yet every time we tread the grass beneath our feet we trample upon an operation of nature as wonderful and more inexplicable than that of the magnetic telegraph. Yet we do not shud-

der. After the surface of the earth has been for months congealed and sealed up, the congenial influences of the same sun whose power in impressing the Daguerreotype we deemed so potent and magical, educes from the dreary waste, not pictures, but realities of wonderful beauty and variety, and causes to thrive and flourish and mature the sustenance for hundreds of millions of men, and the countless swarms of animal life. To cause the growth of a single spire of grass, elements far more numerous are called into requisition, chemical action far more inscrutable is going on. Do you understand the occult attractions, affinities, combinations, which enter into the germination and growth of a single seed or plant, or the tiniest shoot of vegetation? Do you understand the delicate yet potent influences of light, heat, water, and electricity? "Canst thou measure the sweet influences of the Pleiades?" No; you are as ignorant of most of the influences which affect your crops as the clod you tread upon. Of some of the appliances which stimulate, of some of the acts which destroy, you know something, but know little. Yet, strange as it may seem, we hear men often exclaim: "I understand my business well enough; I want none of the instruction of your books." Are you warranted in such assumptions? No. You are guilty of impiety and blasphemy every time you utter it. You know little of the workings of nature's great laboratory. You merely delve upon the surface. You grope in the dark. When the world had not yet recovered from astonishment at the discoveries of Newton, he declared that he felt like a man picking up pebbles on the sea shore, while the great ocean of truth laid unexplored before him. If you understand farming well enough, I mean as a science, you have fathomed all the processes encased and hidden beneath the surface of the earth. You are a wiser if not a humbler man than Newton, and to the question so significantly asked, "Canst thou by searching find out God?" you can triumphantly answer, "Yes."

Farmers of Indiana, when you scout the idea that by the agency of societies, books, fairs, schools and chemical analysis and investigations you can be taught nothing in either the art or the science of agriculture, you are wrong—wrong practically, wrong theoretically, wrong morally, wrong politically, wrong economically, every way wrong. You have the audacity to do what no other class or profession dare to do. All other classes of men are eager, and laborious, and self sacrificing in the acquisition of knowledge. If you would elevate your calling you must bring into requisition every aid and appliance, like other trades and callings. Let every faculty be awake, let every prejudice, and remnant of superstition be banished, and as a class of men you will be healthier, wealthier, wiser, more cheerful, prosperous and happy. I say as a class. The individual may suffer. Every age, every trade, every sect or party in religion or politics, has its experimenters, its charlatans and its martyrs. I know not by what law the tillers of the soil are exempted from the frailties, or follies, or blunders of common humanity. If they wait for some new revelation, some dispensation of a superior power to enable them to float on the tide of progress without incurring risk or failure—if they expect to be so inspired whenever they embark on the great field

of invention and improvement, that they can arrive at perfection without experiment, at perfect utility without loss or expense, they forget the universal lesson taught alike by bitter experience and the inflexible laws of nature. I submit whether the steam engine, or magnetic telegraph were perfected at a blow, under any specific dispensation that saved the inventors from loss and ridicule. So far from it, ruin and disaster, worldly persecution and disgrace, the prison and the stake have been the fate of the greatest benefactors of the race. In the giant progress and conquests of man over nature, I think the professors of agriculture, the great science of sciences, can afford to assume their share of the labor, sacrifices and expense. I grant sometimes they may incur ridicule and disaster. They may be stigmatized as theorists, visionaries, book farmers. In pursuit of experimental inquiries, a few squash seeds may now and then be lost; an animal may be injured; a tree destroyed; even a whole crop may be diminished or destroyed, but I humbly submit, whether in consequence of such occasional results, any man or set of men shall remain self-doomed dunces the remainder of their days. If I remember rightly, when the stroke of lightning knocked FRANKLIN over, he did not cease to experiment on electricity; and when the first steam boiler blew up, WATT did not cease to build steam engines.

There are times in the progress of every art and science, when one man is right, and all the world besides, is wrong. The world test him and his projects by experience of the past. The inspired genius himself is guided by a beacon light far in advance of his generation. If conservatism is right any where, it is wrong in agricultural inquiry. The first man who took the first wild plants and roots and began to mature them into rice and wheat and potatoes, was a visionary. The first man who took the wild crab apple and the bitter almond, to mature them into delicious fruit, was doubtless a laughing stock. The first man who put salt upon his provisions in order to save his family from starvation, was regarded as throwing away positive labor for possible good. The first fence was doubtless viewed with indignation, as an encroachment on the common rights of mankind. The man who had the audacity to shut up the first pig under the silly idea that he would fatten faster and cheaper, was as big a fool as a member of a modern agricultural society. Many of my hearers can remember the unmeasured ridicule heaped upon the first cast iron ploughs. The laborers of Belgium use to this day a clumsy kind of sickle to harvest wheat. At the first introduction, they would probably sneer at and reject our strong, light, efficient cradle scythes. At the exhibition of ploughs and the ploughing match of the World's Fair, we have a fine practical illustration of the instantaneous adoption of a great practical improvement, and the vast benefits of exhibitions and competition. John Bull declared our ploughs too light, too weak, incapable of performing the requisite quantity of work. John Bull had a prejudice against Jonathan's ploughs. The last result John ever imagined, was that he should ever cease to sail the fastest ship on the ocean, or guide the fleetest and neatest furrow on the land. The mightiest man only sought supremacy on both land and sea. At the close of the ploughing match a sturdy ploughman threw out the Ameri-

can plough which he had used, and remarked: "I care not what the decision of the jury may be; that is the best plough on the field, and the one which ought to be adopted." Numbers were sold on the spot, and a British plough manufacturer immediately took measures to secure the patterns. The great American machine, McCormick's Reaper, was derided at the World's Fair by the leading periodical of London as an ugly cross between a wind mill and a flying machine. Yet tried before a world's jury, it bore off the palm among agricultural improvements of the age. Even the most scientific men of the nation most advanced in agriculture, were inclined to frown upon this improvement, which may cheapen the cost of breadstuffs throughout all Europe; no small gain in a climate where the greatest hazards and difficulties are incurred, not in raising, but in harvesting the crops; no small gain in an empire where not a kernel of grain can be lost with impunity, and where more than a million of people have perished of famine within the last ten years. It is not impossible that one result of the World's Fair, will be to cheapen the bread of mankind, and in no small degree, by the introduction into the Old World of the agricultural implements of the New World. Let the land annually ploughed in Great Britain and Ireland be estimated at thirty millions of acres. If by the adoption of improved ploughs, but ten cents per acre is saved, it would amount to the large sum of three millions of dollars. The aggregate quantity of all grain consumed in Great Britain and Ireland may amount to five hundred millions of bushels. Save only the small sum of four cents per bushel by improved methods of harvesting, and it will amount to the enormous sum of twenty millions of dollars. These almost inappreciable savings thus swell to a gigantic stream.

We have lately witnessed at the World's Fair a proud and gratifying spectacle. The citizens of our own country have received and deserved the rewards for one of the best ploughs, the best reaper, and the fleetest keel. The nation sneered at as exhibiting specimens of progress only in rugged utility, has borne the palm for one of the most perfect implements for ploughing the earth, the most perfect machine for gathering the harvest, and the fleetest specimen of the world's vast sail fleet, for bearing on the bosom of the great deep and exchanging the productions of the globe. Yet if guided only by mole-eyed experience and apathy, men would cling to old machinery and implements. The marvellous improvements in the plough, the reaper, and the ship, would remain unknown to seven-eighths of civilized mankind. This is a triumph, not in the arts of butchery and desolation—not a triumph in a hot, insane and brutal contest for victory on land or sea, but a peaceful and bloodless triumph over our mother country in the arts which bear tranquility, and comfort, and health, and bread into every lowly dwelling of man. Never since the noble and prophetic language of the immortal blind bard was penned, has it been more fitly verified:

"Peace hath her victories
No less renowned than war."

We should not infer from our success in agricultural implements, that we are ahead of other nations in other respects. In economical management of

manures, in neatness of execution, in the selection of seed and breeds of cattle, horses, hogs and sheep, we are far behind Great Britain, Belgium, and some other countries in Europe. We have here a singular illustration of the manner in which intelligence affects the laborer on one hand, and want and necessity on the other. The European laborer, pressed by the fear of want or starvation, and hoping for little beyond mere subsistence, bends his energies to obtain by ancient methods and known appliances, and by the most rigid economy and industry, the greatest possible amount for the current year. His strife is to keep soul and body together. The American, on the other hand, with cheap land all around him, cheered by a certainty of adequate support, stimulated by hope and ambition, takes a prospective view of his condition, studies to abridge his toils, has more disposition and better opportunities to try new experiments. Hence his success over other people in this branch of agriculture.

I fear I am becoming tedious, and must draw to a close. I have endeavored to make my remarks suggestive and stimulating, if not instructive. If I have aroused one mind to renewed activity, impressed one vital principle of action, exploded a single prejudice, and more especially, if I have convinced one incredulous, mistaken, or presumptuous man that there is no resting place in the progress and development of agricultural improvement, then my labor is well repaid. We have all been accustomed to hear men say, "It is enough to plant as my fathers planted, to plough as they ploughed. Any man can sow the seed, and hoe the crop. Any man can harvest. I want no book farming about me." Had our forefathers so reasoned and so acted, we should have been barbarians. There is one kind of man that can consistently so reason. Show me the man so dead to all human sympathies that he can deliberately stand up and say that he owes nothing to the past for the high state of civilization in which he lives, for the protection afforded by good government, for the genial comforts of a secure home, for the treasures of intellect and wit, and discovery, stored up in the literature of his age, who acknowledges therefor no debt of gratitude, and who spurns the obligation to transmit these priceless blessings to posterity, and then you show me a man who can with consistency and without a blush, say that he knows enough.

It is but a few days since that I saw an assumption in a leading periodical of a peculiar part of our own country, that history affords no record of a great, refined rural population, where the mass of the laborers were not servile, either slaves or serfs. Without suffering our minds to be melted with sorrow, or inflamed with indignation at the remarks, let us reflect on the lesson it affords. The broad assumption is, that labor on the soil is incompatible with refinement of thought or manners, incompatible with intellectual development. But the severest tests of the physical man in every other walk of life, have as often strengthened as weakened the intellect, as often conferred dignity and refinement, as coarseness of manners. The truth is, that every pursuit which calls into action most of the faculties of man, should produce a harmonious development. We frequently find this result in the sailor, the soldier, the engineer, the merchant; and in many portions of our own country

this happy result is verified in the case of the farmer. In times past, the laborer, the tiller, the worker has been nothing but a miserable serf everywhere, as he is now in a majority of civilized countries. It has been somewhere pungently remarked in regard to the agriculture of Great Britain, that the only part of the agriculture of that proud empire which had exhibited no improvement during the last two centuries, was the laborer himself who did the work. This is indeed a melancholy reflection, but too true. The *elite* of all civilized Europe have been the titled aristocracy, the officials, the army, navy, and more recently, merchants and trading classes. The farm laborer has been laboring, from age to age, even without hope for any higher respectability for his children. He could not acquire a spot which he could call his own, a hearth-stone around which he could gather the charms and delights of home. He had no Penates, like the ancient Roman, no household Gods. In England to-day the farmer is generally the lessee of large tracts, and as compared with the actual laborer, an aristocrat in a small way. Between the exactions of farmer, landlord, and tax gatherer, little or nothing is left to the toiler. It follows that the tiller of the soil is doomed to hopeless exertion, to ignorance, to want, to extortion, and disease, with hardly a chance to escape from associations calculated to render him coarse, if not brutal, ignorant, if not besotted. Because looking over the surface of mankind, history tells this lamentable, this unholy, this terrific tale, therefore the short sighted generality is eagerly seized, that by a law as inflexible as a law of nature, such must be the eternal fate of the tillers of the soil, including yourselves.

One half century will afford a different demonstration. Enterprises like yours, from the giant State Fair of New York to the humblest county Fair, are promoting it. The emigrant westward of to-day carries a more cultivated brain and as strong an arm as his predecessor. The improvements of one longitude are borne rapidly to another by improved modes of locomotion, and by the electric spread of thought and intelligence. If there never was a great, refined, intellectual rural population, there will and must be one in our land. Woe be to this nation if there is not. We live on the edge of the valley of the Mississippi. That valley must be the centre of the civilization of this hemisphere. The ideas and institutions which there rule must give character to and rule the vast republic. These ideas and this character, which will impress and control the body politic, must be those of a great rural population. In this as in all countries, by necessity, the agriculturists must be a majority over all others. *Ideas, ideas*, now rule the world. The army of the Czar, the purse of the Rothschilds, may shape affairs of the world to-day. They may do it for next year or the next forty years, but the apparently impregnable edifices of power erected upon them, are daily undermined by ideas, by opinion. In our country the power of accumulated wealth, the tyranny of corporations, the power of associated talent, conspiracies tacit or open of great parties or sects, political or religious, against the weal of the whole, are all powerless before the sway of ideas. It becomes then every man devoted to agriculture to be responsible that his children and successors, the posterity of himself and his neighbors, shall be enlightened. It becomes

him to be inquisitive and open minded himself. It becomes him to cheapen production, abridge toil, instruct, refine, dignify and ennoble his calling; in a word, to contribute his share towards shaping the destiny of the future rural empire. It becomes him to do his share towards giving to the world a proud and conclusive demonstration, that an agricultural people, can be a great, powerful, resistless, and at the same time refined and intellectual people. No, this homestead of the farmer, with the magnificent arch of heaven above him, the magazine of untold mysteries beneath him, and ever changeful luxuriance and beauty all around him, ought not to be, it shall not be, a cheerless prison house, a curse instead of a charm.

FAYETTE COUNTY.

REPORT OF THE FAYETTE COUNTY AGRICULTURAL SOCIETY.

To the Honorable, the Indiana
State Board of Agriculture:

The undersigned, President and Secretary of the Fayette County Agricultural Society, would submit the following as their report for the year 1851:

Said society was organized on the 18th of October, 1851, and on account of the late period of its organization, no exhibition or fair was held, consequently it is impossible for the undersigned to comply with the rules laid down by said Board, but so far as the same can now be done, they now report that said society consists of 146 members.

The Treasurer's report shows the following to be the financial condition of the society, to-wit:

Cash paid on membership,	-	-	$103 00
Cash paid by County Treasurer,	-	-	45 00
Total,	-	-	148 00
Paid expenses,	-	$4 15	
Loaned,	-	130 00	134 15
Which leaves,	-	-	$13 85

There have been but three regular meetings of the society and one agricultural address, delivered by David P. Holloway, Esq., but no copy has been published nor has there been any other correspondence or communication to the society relative to the objects of the society.

The principal kinds of agriculture are, wheat, rye, Indian corn, buckwheat, oats, barley and potatoes, the aggregate amount of each of which it is impossible to give—however, an estimate may be had by the census returns of 1850:

	Wheat.	*Rye.*	*Ind'n Corn.*	*Potatoes.*
1850, bushels,	91,641	1,475	943,573	14,359
1851, "	92,000	1,500	100,000	20,000

The above comparison is made from our own knowledge of the condition of the wheat, corn and potatoe crop. The average of wheat per acre may fairly be estimated at twenty-two and a-half bushels per acre, and Indian corn at sixty bushels per acre. The price current for wheat has been, for Genessee, fifty-eight cents, all other fifty-five cents; corn twenty cents; other productions not given. The produce of the county is principally sold at Connersville, from whence it is shipped to Cincinnati *via* White Water Valley Canal. Manufacturing (except flour) is yet in its infancy, a woolen factory, and an iron foundery for the manufacture of stoves and castings about comprise the number. The canal affords water power for a large amount of machinery, yet unemployed.

Respectfully submitted,

JOHN SPIVEY, *President.*

D. W. WELTY, *Secretary.*

COMMUNICATION FROM MR. M. R. HULL.

ALGONA, FAYETTE CO., IND., October 25, 1851.

To the State Board of Agriculture:

In compliance with your request, I proceed to answer a few of the interrogatories in your circular of June 4:

1. I will answer your 7th question, namely: "Are large or small sheep more profitable, either for mutton or for their fleece? Cost per pound of growing coarse or fine wool? Is wool growing profitable?"

I am unprepared to say, positively, that small sheep are more profitable for mutton than large ones, but incline to the opinion, that the Spanish Merinos are not less profitable than the South-down, or Leicester, for mutton. The difference in their size, is not as great as most persons suppose. The Merino is to the large framed sheep, what the China is to the family of hogs; they eat but little and grow fat.

The cost per pound of growing coarse, is equal to the cost of growing fine wool, since coarse sheep require more pasture and more feeding. Coarse wooled sheep of our common kinds will yield about *five* pounds to the head, which in this market will bring thirty cents per pound, ($1 50.) A well selected flock of Spanish Merino sheep will yield an average of *four* pounds per head, which will bring sixty cents at a wool depot in the east, ($2 40.) Hence, I conclude that the difference in the price of the fleece per head, more than equals the difference of price in the mutton market. The Merinos live to a more advanced age and are the hardiest sheep now living.

Is wool growing profitable? To this I reply, that my observation teaches more than my experience. I have known persons both in Pennsylvania and Ohio, who have got wealthy by renting land and growing wool. One acre of land will sustain four head of sheep per annum, which may be rented for three dollars; the four head will yield eight dollars worth of wool, and you have five dollars to pay interest on the investment and to pay for a shepherd's care. And, since we consume 75,000,000 of pounds annually more than we produce, I conclude that wool growing *is*, and of course, must continue for *years to come*, the most profitable business the husbandman can turn his attention to.

I have stocked my farm with Spanish Merino sheep, and hesitate not to recommend all farmers who occupy the undulated lands of Indiana, *to do likewise. It is profitable.*

2. Your 8th interrogation relates to hogs, and reads, "What are considered the best breeds, and the best method of putting up pork, and curing bacon and hams? Prices of pork and bacon during the present summer?"

"What are considered the best breeds?" To this, I reply without doubt, that the Poland, crossed upon the Byefield and Russian, exceed all others for beauty, size and profit. They are a good grass hog, and are sufficiently lively and

industrious to make a good living off of good pasture. They mature early, have a small head, small ear, short neck, thick shoulder, long body and long ham, and are capable of bearing more fat that any other kind we have had amongst us. They are familiarly known here as the "Warren county hog." McGee of Butler county, drives no other kind of hogs, his droves have averaged him more than 410 pounds for several years in Cincinnati. This kind may be had in our neighborhood.

The best method of putting up pork of which I have any knowledge, is, to cut and salt your pork in the common way; then make a brine strong as salt can make it, and to each gallon of said brine add one pint of molasses, not forgetting to put in a small parcel of salt petre. Cover the whole over with brine. After your meat is sufficiently salted, hang it up and smoke it thoroughly with hickory wood, then, when your hams are perfectly dry, (in commencement of summer,) pack them away in barrels, in clean dry tan bark, black oak is preferable; have it fresh from the bark-mill. This process secures the hams against skippers and against souring, and makes your meat more pleasant than any ever eaten. The barrels should be headed up and put away in a cool and dry situation.

Bacon through the summer, in this county, has been from seven to nine cents. Pork at this date, sells for five dollars per one hundred pounds.

3. Potatoes.—You ask to know "the most profitable variety?" I make it my study to select the best of everything I grow, both animal and vegetable. I have tried the Irish-grays, the Mechanocks, the Pink-eyes and the Big-blues. The latter is as well tasted as either, grow much larger and the yield more abundant. If you have no new ground for potatoes, turn up your oldest sod and you will not fail to have a good yield, if you till well, and plant but four eyes to a hill. Hills, eighteen inches by three feet.

I take pleasure in communicating, and anticipate much more in reading your report.

Respectfully,

M. R. HULL.

HENRY COUNTY.

REPORT OF THE HENRY COUNTY AGRICULTURAL SOCIETY.

President of the State Board of Agriculture:

The undersigned, in pursuance of instructions from your Board, respectfully submits the following report of the organization and operations of the Henry County Agricultural Society.

A society of something less than thirty members was formed at a meeting in Newcastle, on the 20th of September, a constitution adopted in conformity to the plan proposed by the State Board, and the following officers elected for the current year:

Eli Murphey, President;

Stephen Elliott, Treasurer;

Jno. W. Grubbs, Secretary;

With an efficient Board of Directors, consisting of one member from each civil township in the county. At a subsequent meeting of the society, the number of contributing members was increased to 100; and active solicitors are now engaged in still further adding to the membership and funds of the society.

At the last named meeting it was resolved to hold a county fair at this place in October, 1852—the precise time to be fixed at the next meeting of the Board of Directors.

A most excellent spirit on the subject of agriculture and mechanical improvements has been awakened in our county, from which we anticipate good results. A spirit of emulation and a desire for improvement, both as regards modes of culture and tillage, as well as the introduction of the best breeds of stock, prevails among our farmers; and a most gratifying display is anticipated at our first annual fair.

Very respectfully,

JNO. W. GRUBBS,

Secretary Henry Co. Agricultural Society.

Hon. Joseph A. Wright,

Prest. State B. Agriculture.

HENDRICKS COUNTY.

REPORT OF THE HENDRICKS COUNTY AGRICULTURAL SOCIETY.

To the President of the Indiana
State Board of Agriculture:

The undersigned, Secretary of the Hendricks County Agricultural Society, would report:

That on the 23d day of August, 1851, a number of the citizens of Hendricks county met at the Court House, in the town of Danville, and then and there organized themselves into a county agricultural society, under, and in accordance with the provisions of an act of the Legislature of the State of Indiana, entitled, "An act for the encouragement of agriculture," and agreeably to the rules and regulations of the Indiana State Board of Agriculture. That at said meeting a constitution was adopted, and signed by forty-nine persons, (and many more since that time,) and the following persons elected officers of said society, to-wit:

ENION SINGER, President.
CHARLES LOWDER, Vice President.
JAMES M. GREGG, Secretary.
SAMUEL P. FOOTE, Treasurer.

And James T. Hadley, Isaac Clark, Richard Mendenhall, Zachariah S. Ragan, Jehu Hadley, Mincher L. Cox, Jeremiah Tinder, Charles Rose, William H. Darnall, Eldred Huff and Asa S. White, *Directors.*

That no business of any kind whatever has been transacted by the society since its organization, nor has the society received any funds other than the tax required of each individual member of the society, which is one dollar each.

Respectfully submitted:

JAMES M. GREGG, *Secretary.*

DANVILLE, January 7, 1852.

KNOX COUNTY.

REPORT OF THE KNOX COUNTY AGRICULTURAL SOCIETY.

To the President and Members
of the Indiana State Board of Agriculture:

The undersigned, Secretary of the Knox County Agricultural Society, would report that not having received or seen the circular of the Indiana State Board of Agriculture, will have to be governed in the form of his report by a synopsis of said circular found published in the Vincennes Gazette; and in doing so the questions therein stated will be taken up and answered in their numerical order, so far as the means in my hands or my personal knowledge will permit. He would further state that as to most of the questions he has no certain data from which to form his answers, and that therefore the answers will to a great extent be matter of opinion. He would also suggest the propriety of the State Board having regular tabular forms printed and sent to the several county societies in the State, that they, at their regular annual meetings, may take order to secure correct information on all necessary points, and thereby secure uniformity in all county society reports.

1. WHEAT.—The Blue Stem and old Red-chaff, bearded, are considered the best varieties. There is no regular method as to preparing the ground; some fallow; many sow in corn and some on stubble ground. Time of seeding, from the 1st of September to the last of October, mostly about the 1st of October. Quantity of seed per acre, from one to one and a fourth bushels. Average yield per acre, on good fallow from about eighteen to twenty-five bushels; on corn and stubble, from ten to sixteen bushels. Time of harvesting, last of June. Manner of securing crop, the old way, cradling, binding and stacking or mowing; there are but few reaping ma-

chines in our county. Usual place of market, Vincennes. Prevailing price, fifty cents per bushel. Remedies for Hessian fly, is late sowing; for Weavil, threshing and putting up in the chaff, which if done in time is thought to be a sure preventive.

2. Corn.—Manner of preparing the ground, some plow in the fall and winter, and re-plow in the spring, but generally the ground is plowed in the spring, then cross listed and planted. Time of planting, from the middle of April to the middle of May. Number of times and depth of plowing, from three to five times and from three to six inches in depth. Average product per acre, from thirty to eighty bushels. Place of market, Vincennes. Price, from fifteen to twenty cents per bushel.

3. Oats, Rye and Barley.—Quantity of seed for oats and barley, one and a-half to two bushels; for rye, three-fourths to one bushel. Average yield of oats and barley, from twenty-five to thirty-five bushels; rye, ten to twenty. Prices, oats, twelve to fifteen cts.; rye, forty-five to fifty cts.; barley, fifty cts.

4. Grass.—Most valuable, timothy. Quantity of seed per acre, about one gallon. Quantity of hay, one and a-half to two tons per acre. Place of market, Vincennes and Maysville. Price per ton, six dollars.

5. Dairy.—Average price of butter, ten to sixteen cents per pound.

6. Neat Cattle.—Value of beef-cattle, three dollars per hundred; as to balance, *can't* answer.

7. Sheep and Wool.—Not informed.

8. Hogs.—Best breeds, Berkshire and Byfield. Price of pork, three to four dollars. Bacon, seven to nine cents per pound.

9. Hemp.—None.

10. Potatoes.—Price, twenty to thirty cents per bushel.

11. Fruit Trees.—*Can't* answer.

12. Soil, Timber, &c.—Prevailing character of soil, rich

and productive. Crops to which it is best adapted, corn, wheat, barley, oats, tobacco and grass. Different kinds of forest trees, oak, poplar, walnut, ash, beech, dog-wood, red-bud, sassafras, maple, hickory, &c. The land is generally rolling.

13. County or District Societies.—The Knox County Agricultural Society was organized August 18, 1851. The board of managers consist of a president, vice president, treasurer and secretary, and nine directors, being one from each civil township, to-wit:

Hon. Samual Judah, President.
Hon. James Williams, Vice President.
Wm. Thornton Scott, Treasurer.
A. B. McKee, Secretary.

Abner Smith, Samuel Thompson, Samuel C. Wills, Simeon Root, Daniel Lane, John Steen, Benj. V. Beckes, Joseph Kimmons, and George Bond, *Directors.*

The society numbers one hundred and twenty members. The society had a fair on the 15th of October, when some fine specimens of horses, cattle, &c., were exhibited; and between thirty and forty dollars paid out in premiums. It was only designed as a beginning and but few were prepared for or expecting it; but an impulse was given on the occasion, which I think will tell at a future day. Some of our ablest and most enterprising citizens have embarked in the enterprise, and the prospects of the society are bright and glowing and its effects upon the county will certainly be of the most happy character. It is pleasant to see the masses mingling together on these occasions—the lawyer, the doctor, the merchant, the mechanic, the farmer, all united in one common brotherhood, and all standing upon one broad platform, uniting their heads and their hearts to promote each other's good and each other's welfare. Such societies will go far to break down those unhappy distinctions and divisions which unhappily so often exist in communities and exert so baneful an influence.

All of which is respectfully submitted,

A. B. McKEE, *Secretary.*

LAPORTE COUNTY.

REPORT OF THE LAPORTE COUNTY AGRICULTURAL SOCIETY.

To the President of the Indiana
State Board of Agriculture:

This is to certify that, at a meeting of the citizens of Laporte county, held at the Court House, in Laporte, on Saturday the 3d day of January, 1852, an agricultural society was duly organized for said county of Laporte, to be known by the name and style of the "Laporte County Agricultural and Horticultural Society," and that a constitution and by-laws, in accordance with the provisions of "An act of the legislature of the State of Indiana, for the encouragement of agriculture," approved February 14, 1851, and that the following persons were elected officers of said society:

WILLIAM ALLEN, President.
GEORGE CRAWFORD, Vice President.
THOMAS D. LEMON, Secretary.
WILLARD A. PLACE, Treasurer.

Together with a full board of directors, consisting of one in each civil township.

The agricultural society of Laporte county consists of about eighty members.

W. ALLEN, *President.*

WM. MILLIKAN, *Secretary.*

LAPORTE, January 3, 1852.

COMMUNICATIONS FROM MR. JOSEPH ORR.

LAPORTE, IND., January 1st, 1852.

HON. J. A. WARDER,

President of the Indiana State Board of Agriculture:

Our agricultural society has done but little since its organization. But as it has united with the horticultural society, better things may be expected. At least I hope a delegate will be sent to your meeting next week. Supposing that no report will be furnished you by the society, I will try and furnish you with information upon such points contained in your circular as I am familiar with.

Wheat.

As an early, hardy and productive variety, we esteem the Mediterranean the best. Next the Starbuck—called after the man who brought it to the country. It is a hardy, red-chaffed, bearded variety, and does better under bad culture than any other among us. Beside these we cultivate the Canada flint, Genesee, Hutchinson, and others of the white wheat. But as they mature later, they are more apt to be injured by the rust. Seeding is generally done between the 5th and the 20th of September; by some with the drill, by others broadcast and harrowed in, and from 1¼ to 1½ bushels to the acre. In dry seasons, (fall,) open and cold dry winters, the drill is the better plan. But in favorable seasons, wheat sowed broadcast by a skillful hand, and harrowed in, will give a larger yield. We commence cutting our Mediterranean about the first of July, and other varieties one to two weeks later; use the cradle in rough ground, and generally McCormack's reaper in smooth; stack in the field, and thrash at intervals as we want for use, or can take to market.

Our crops of 1850 was extra good, averaging some 23 bushels to the acre; and as it brought 70 to 75 cents per bushel at Michigan City, where sold, was generally taken to market. That of 1851 was some 20 per cent. less in yield than the previous year, and as the price ranged low (50 to 55 cents) all fall, was not sent to market freely; consequently the surplus now on hand exceeds very largely the quantity on hand this time last year. There has, however, been shipped from Michigan City in 1851, 205,146 bushels of wheat, and 3,000 barrels of flour—say equal to 220,000 bushels, which at the lowest figure sold for, netted $110,000. Some of this, however, is due to the credit of other counties, selling at the same market. But not more, it is believed, than the excess now on hand over last year this time; so that the figures above give very nearly the surplus for 1851.

Corn.

This crop has been extensively cultivated for a number of years, and is now regarded as one of our principal staples. We raise a number of varieties, but the one mostly preferred is a yellow dent, weighing 56 to 58 lbs. to the measured bushel; yielding well and ripening early.

Good farmers plow deep, and as early in the spring as they can—late in the fall is better—mark out four feet apart each way; plant from the 1st to the 15th of May, and then harrow once; plow from three to five times—the more the better—with double or single shovels, and hoe enough to keep the hills clean and the corn upright. In this way we get fifty bushels or over per acre.

The corn crop of each year is generally sold and sent forward the succeeding year. And during the year 1851 there has been shipped at Michigan City 482,616 bushels, at an average cost paid the producer of 32 cents, or $154,437 12.

In addition to this, our home consumption of corn, wheat, oats, potatoes and provisions, has been largely increased by the thousand and upwards employed on the different railroads passing through the county.

Oats.

The quantity raised in the county is estimated at over 200,000 bushels. But as my object is to give the surplus of our production only, I will confine myself to such limits as cannot well be questioned. Then there has been shipped from Michigan City during the year, 25,026 bushels; and the lowest estimate of extra consumption by railroads as above, put them down at 15,000 bushels; say then 40,000 bushels at an average cost of 25 cents per bushel, or in the aggregate $10,000. Of oats we sow from 1½ to 2 bushels to the acre, and gather 40 bushels.

Barley

Is raised in small quantities, probably 10,000 bushels annually, one-half of which, or more, is sold to go elsewhere—say 5,000 bushels—and has brought forty to fifty cents per bushel during the year, say 45 cents, amounting to $2,250. We sow two, and get forty bushels per acre.

Rye.—But little raised or enquired after.

Grass.

Clover is being raised to some extent as a fertilizer of the soil, and mixed with timothy for pasture and for hay. The two, or timothy separate, yields from one to two tons per acre of hay, at a cost including ground rent, of four to five dollars, and sells in our towns at six to ten dollars. Large quantities of marsh grass are annually cut, at a cost of one and a half dollars per ton in the stack; and for sheep or cattle, where well saved, is a fair substitute. With a little corn, both winter well upon it.

Dairy.

This business is on the increase, and will soon produce a surplus. But as yet the home market, though well supplied, takes off all that is made. Butter 10 to 15 cents, and cheese at six to eight cents per pound.

Neat Cattle.

Increased attention to raising cattle is everywhere visible, though but little has been done towards improving the breed. Nor is the business systematized enough to tell the cost of raising at any given age. All kinds are in demand. Beef at 3 to 3½ cents per pound. Three year olds at 12 to 14, and dairy cows at 12 to 16 dollars per head. Estimated surplus, 2,000 head, at $15 each, or in gross, say $30,000.

Sheep.

Our flocks are largely on the increase, numbering probably 25,000 head, and giving us an average clip of 2¾ lbs. per head, or 68,750 lbs. of wool, which sold last summer at an average price of 37 cents. Deducting 18,750 lbs. for home consumption, which is probably over than under the quantity worked up, we have a clear surplus of 50,000 lbs., which, at 37 cents, gives us $18,500 on our wool. To this may be added 1000 head drove to the Chicago market for mutton, at two dollars per head, which gives a surplus on the item of sheep of over $20,000.

Our sheep are of every grade from full blooded Spanish and French Merinos, down to the common wooled stock. But few Saxony, and as far as I know, no English sheep are in the county. We value our sheep more for their fleece, and for clearing up and fertilizing our lands than for mutton, though many are slaughtered annually for mutton.

Hogs.

But little attention is paid to raising pork beyond our home consumption and home demand. The surplus of 1851 will probably not exceed 2,000 bbls., which at the price of pork, (4 to 4½c. per lb.,) may be estimated at $90,000.

Hemp.

But few experiments have ever been tried in hemp raising, and those were not successful.

Potatoes

Are largely cultivated and highly prized as an article of food, and some for exportation. The Meshanocks, pink-eye, blue and flesh colored, are our principal varieties. They are usually cultivated in hills, as corn, and in good seasons will yield 200 bushels or more per acre; have brought the last fall 30 to 60 cents per bushel, and are now in demand at even higher prices. They, in common

with every other article of food except breadstuffs, are in better request than common, on account of the extra home consumption. Our surplus may be safely estimated at 10,000 bushels, which, at an average price of 40 cents, has produced $4,000.

To recapitulate—

Wheat, 220,000 bushels at 50 cents per bushel,		$110,000
Corn, 482,616 bushels at 32 cents per bushel,		154,437
Oats, 40,000 bushels at 25 cents per bushel,		10,000
Barley, 5,000 bushels at 45 cents per bushel,		2,250
Cattle, 2,000 head at 15 dollars per head,		30,000
Sheep, wool 50,000 lbs., at 37 cts. per lb.,	$18,500	
Mutton, 1,000 head, at $2 per head,	2,000	
		$20,500
Hogs—2,000 barrels pork, at $10 per brl.,		20,000
Potatoes, 10,000 bushels, at 40 cents per bushel,		4,000
In the aggregate amounting to		$351,187

These estimates are intended to show the net surplus of the county, in the articles enumerated, after deducting all home consumption, except that used by the transient population engaged on the public works; and had I any reliable data whereby to estimate the fruit, vegetables, poultry, butter, cheese, and many other articles of ordinary consumption used by the same transient population, or sent elsewhere to market, the agricultural surplus of the county would exceed $400,000 for the year 1851.

Fruit Culture.

To name the different varieties, methods of cultivation, keeping qualities, &c., one must write a book. So much depends upon soil, climate, variety and after culture, that the limits of an ordinary article will but admit of a few hints. The same variety under widely different circumstances, will produce the extremes of good or bad. The Swaar or Green Newtown Pippin in wet, cold, heavy soils are not worth cultivating. But give them a good, dry and gravelly soil, and they are the best of apples, both for keeping and for flavor. Even the little American Golden Russet, which thrives in any soil, and for richness of flavor and fineness of texture is the *chief among ten thousand*, now lies before me with its beautiful face as spotted as though it had had the small pox in the *natural* way. With us it is at the extreme northern verge of its appropriate clime. So with the white Bellflower, white winter Pearmain, and some other excellent varieties, which we are topping off with hardier heads. But the little Russett we will stick to, *through evil as well as good report.*

No domestic pursuit is so well calculated to repay the cultivator with health, pleasure and profit, as a well assorted and well cultivated fruit garden and orchard; yet none are so much neglected or as little understood. Nurserymen too, are often in fault in the impediments they throw in the way of judicious selections, by contriving to cultivate poor varieties under imposing names, and

good ones under different names. The American Pippin, more appropriately called the Grindstone by some, has an imposing name; yet with a *good steel you may strike fire from its fruit;* while the White apple, Gate apple, Bellmont and Waxen apple, are all sold to us as *first rate* winter apples; and so they are, but when they come to bearing you have *one* good variety with *four* names. So with the Butter Pear, White Beurre, St. Michael, Yellow Butter, Virgalieu and White Doyenne—*all bone of one bone and flesh of one flesh.* And so on to the end of the catalogue.

Whether it be done through inattention, or a *trick of the trade*, the bad effects of this practice are the same, and are known and felt by all cultivators of observation, and ought to be discouraged.

The best remedy, in my opinion, is for the State Board of Agriculture to publish, in all their reports, a carefully selected list of standard varieties—admitting from time to time well tested new ones, and discarding such as on fair trial should not prove worthy of general cultivation. By this means catalogues would soon be simplified, the cultivation of fruit become a popular pursuit, and eminently useful to all. I would like to have the opinion of my old friends Reuben Reagan and Aaron Alldredge on such a subject—men who from long experience and close observation can detect the error of a single tree in a nursery, by the peculiarities of its wood and leaf, would put us right on such a subject.

Now, I have over one hundred and fifty varieties of fruit trees in bearing, and some fifty more coming on that have not yet fruited; but to name the different varieties would answer no useful purpose. I will, however, name a list sufficiently large in variety, to answer all useful purposes, and which seem to promise well with us:

Cherries.

May Duke,
Early Purple Guign,
American Heart,
Elton,
Bigarreau or Yellow Spanish,
Belle de Choicy,
Black Tartarian,
Napoleon.

Plums.

Green Gage,
Imperial Gage,
Bleeker's Gage,
Washington,
Jefferson,
Lawrence's Favorite,
Smith's Orleans,
Coe's Golden Drop,
Columbia.

Peaches.

Early York,
Large Early York,
Crawford's Early,
Crawford's Late,
Bergen's Yellow,
Gross Mignonne,
George the IV.,
Morris' White,
Old Mixen Free,
Royal George,
Red Cheeked Malecotien.

Pears.

Bloodgood,	White Doyenne,
Madeline,	Louisa Bonne d. Jersey,
Dearborn's Seedling,	Winter Niles,
Bartlett,	Passe Colmer,
Sickles,	Beurre de Aremburgh.
Flemish Beauty,	

Apples.

Name.	*Comes to perfection.*
Early Harvest, Early Strawberry, Sweet June,	July and August.
Early Go, Sweet Bough, Red Astracken,	August and September.
Summer Queen, Gravenstein, Fall Wine,	September and October.
Maiden's Blush, Fall Pippin, Porter,	October and November.
Westfield Seek-no-further, Rambo, Femuse,	November and December.
Golden Russet, Waxen Apple, Dutch Mignonne,	December and January.
Rhode Island Greening, Baldwin, Prolific Beauty,	January and February.
Ladies' Sweeting, Swaar, Esope's Spitzenburgh,	February and March.
Northern Spye, Rawl's Janett,	March and April.
Wine Sap, Green Newtown Pippin,	April and May.
English Russet, Boston Russet,	May to July.

Trees grafted out of the ground make the smoothest trunk, but are more tender than seedling stocks; nor are they so easily worked as the budding pre-

cess. Apart from these considerations, the one process is as good as the other. Grounds intended for a fruit garden, or orchard, if not naturally dry and rich, ought to be made so by ditching, deep-plowing and manure. Thus prepared, the holes for standard trees should be at least thirty feet apart each way for apples; twenty for pears and cherries; fifteen for peaches and plums, and dug three feet or more in diameter, sixteen to twenty inches deep, then filled up with top soil, one to two bushels of well rotted manure, (leaf mould is better) and one gallon of lime or good ashes to each, mix thoroughly and plant as low as they stood in the nursery. Care should be taken to preserve the roots and top about equal, and as full as possible, and the latter from the sun and air till planted. By this process, and by staking and mulching and watering trees once or twice, there need not be one tree in a thousand lost by transplanting, or perceptibly checked in their growth. Nor need the spring, nor fall, nor moon be consulted; provided the sap is dormant and the frost is out of the ground.

The after culture should be in root crops, beans, cabbage, pumpkins, or some low variety of corn for four or five years—not forgetting to manure well, especially, with lime or ashes about the trees. With this attention, and once washing the trunk of the trees with soapsuds or ley, the first warm weather every spring, the grubs and borers would leave us the pleasure of more thrifty trees and better fruit and more of it than we generally see.

Apples intended for winter use should hang on the tree till cool weather, or until they commence dropping off—then picked and assorted with care, on a clear dry day—put into new, tight barrels, headed up and removed, without jolting, to some cool, airy place, where they should remain till moved for the winter to a dry cellar or fruit room, which should not take place as long as they are safe from freezing. An apple will not freeze in the open air till the mercury sinks some 12 deg. below freezing point.

Should you find anything in this of use, in making up your report to the legislature, take from it such items as will serve your purpose. But I pray you, let not its homely face appear in public.

Very respectfully,

JOSEPH ORR.

DRAINING WET LANDS.

LAPORTE, November 23, 1851.

GOVERNOR WRIGHT:

Dear Sir:—I have just read your speech, delivered before the Wayne County Agricultural Fair, and am pleased with your views about our wet lands. These lands are not generally appreciated by our citizens, mainly, because they are unfit for present use. They must be relieved of their excess of water, and then have the sun and changes of seasons to mellow them before they are fit for use.

Many suggestions and experiments will be made, before we arrive at the cheapest, and best mode of improving them. The depth of muck, under-strata, be it clay, gravel, or quick sand, and descent, must all come into the account,

and even then we may be puzzled to fix upon any system that will suit all localities.

The editor of the Michigan Farmer, in his letters from Europe this summer, tells his readers, how moors, bogs, and other wet lands are made to produce the various roots and grains raised in England and Scotland, in the greatest perfection. Their system however, needs shortening, and cheapening, which yankee ingenuity can soon effect, and has already commenced. For instead of removing the sod of their moors (marshes) by spade and by hand, I saw, the other day down at Rochester, a plow made for the same purpose, which *shaved off four feet of sod at a lick.*

After all, the experienced ditcher, with his spade and his shovel, must lead off in this business. No ditching plows or other machinery are of any use, on our deep deposits of muck, till after the water with which our marshes are submerged, is taken off, and the muck has time to harden. Our experience with ditching plows has fully proven this ; while all who use the spade and the shovel are succeeding well.

Seeing the success of others, I have also engaged in these improvements, and have laid the foundation on a somewhat large expenditure. I have secured in one contiguous body on Crooked creek, over two thousand acres—two thirds of which lies in the marsh. The centre of this tract is where the township line between 35 and 36 crosses the west line of Laporte county, and the marsh and the creek are correctly laid down on our State map. The marsh is about one and one-fourth miles wide—is level and wet, and is composed of a deep black muck of decayed vegetable matter, from four to eight feet deep—seldom as low as four ; and is sodded over with a stiff grass sod, yet of cohesiveness enough below the sod to spade well, and the ditches to retain their shape. The whole is underlaid with a stiff blue clay, or gravelly *hard pan.*

Of this two thousand acre tract, I am now enclosing eight hundred acres, with a ditch of six feet wide at top, two feet at bottom and four feet deep. Two of my ditches are across the marsh, one mile apart, and the other two are along the edges, with a view of catching the water from the *thousand and one* springs, which rise along the foot of the dry land, and to carry their water to the creek. This eight hundred acres has but one spot of *three* acres of dry land on it, and is apparently a perfect plane—yet my ditches show a fall of over six feet to the mile from the dry land to the creek, and at least as great a descent the other way ; and so uniform is the fall that the water in the ditches passes off with a free and a quick current the whole length of the ditches. In near two miles of ditches which I have already made, the muck is no where less than four and a-half feet deep, nor seldom over six. I therefore think of deepening my ditches to five feet, which will bring them nearly to the shape of a V. My intention is, to subdivide this eight hundred acre tract, with the same kind of ditches, into forty acre lots, with a bridge, a gate and a watering place to each lot, and to leave the ditches open, for the double purpose of a drain and a fence. The cost, all told, will be fifty cents a rod, or one dollar per acre ; and with this expenditure I expect to have the best of grass land ; *and may, after two or three years' exposure to the sun and close pasturing, tell you what else we will have.*

I have eight hands now at work, who expect to work at it nearly all winter, and have engaged four more, who are now in the employ of others, to commence early next spring—all experienced ditchers, and fond of the business.

I entertain a high opinion of these marsh lands, and indeed of nearly all the wet lands in the State. With a few exceptions they can be made the best lands we have. They however, require some capital, and a good deal of patient industry to subdue them. To the man of limited means and energy, they are in the main, useless, even if given to him. That class want something for immediate use, which they cannot find in these lands. Hence nothing is to be gained by reducing the price, or urging them into market beyond the wants of those who will improve them. To that class the present price is no substantial objection. There is however a substantial hinderance to their sale, and to the improvement of these lands generally, which needs legislation.

To improve our marsh lands *well*, cannot be done without a considerable outlay in money or labor, and when so improved adds a permanent value to adjoining lands as well as our own. The owner of adjoining lands are often absent, or unwilling if present, to join in the expense even where the parties may be equally benefitted. Now in this age of *quid pro quo*, there are but few, who are willing to add fifty or one hundred or any other per cent. to land not their own, without some compensation. Yet in this kind of improvement they must do so, or do nothing; and there are a number of cases in this county where men have declined, and others suspended improvements, which they wished to make, rather than make them under such circumstances. In some cases this objection is partially overcome by enlarging the tract we wish to improve. But this cannot always be done, even by those who wish to do so—nor are all able who would, and this latter class are the greatest sufferers.

Remove these objections by just and efficient legislation, and you will add millions annually to the value of your assessment roll, say nothing of the good effect it would have upon the general health of the State.

A number of our citizens have been buying swamp lands of the State with a view of improving them; or rather they have made their selections and have deposited their money at the land office at Winamac, with the understanding that such selections would be confirmed, so soon as some preliminary questions, apparently of small moment, were settled at the general land office. I am of that number, and owing to the delay, feel some little concern about it—the more so as I am engaged in improving a portion of them. On this subject however, you are no doubt well advised, and will do whatever is right in the premises.

I was prevented from meeting with you in May last; but hope to meet with the Board in January. The agricultural heat not is quite so high among us as I would like to see it, though we have organized a society, and I hope to have a very efficient associate on the State Board, in the person of its president, Wm. Allen.

Very respectfully, yours &c.,

JOSEPH ORR.

His Excellency, J. A. Wright.

MARION COUNTY.

REPORT OF THE MARION COUNTY AGRICULTURAL SOCIETY.

To the Indiana State Board of Agriculture:

The undersigned President and Secretary of the Marion County Agricultural Society, respectfully report:

That on the 9th day of September, 1851, a number of citizens exceeding thirty of said county, mostly farmers and mechanics, met at the court house and organized themselves into a society for the improvement of agriculture in said county, and adopted a constitution and by-laws in conformity with "An act for the encourgement of agriculture," approved February 14, 1851, and agreeably to the rules and regulations furnished by the State Board of Agriculture, and elected

CALVIN FLETCHER, President.
POWELL HOWLAND, Vice President.
JAMES JOHNSON, Treasurer.
ROYAL MAYHEW, Secretary.

And the following named persons directors from the nine several civil townships of the county, to-wit:

John Jameson, Hiram Bacon, Samuel Frazier, Jeremiah Johnson, Abner Pope, sen., Isaac B. Sandusky, Jacob Smock, Isaac W. Hunter, and Demas L. McFarland.

Said society raised by subscription of members at said meeting a sum exceeding fifty dollars, and adjourned to meet again on the first Saturday of November, at which time it appeared that quite an accession of members had taken place, and again adjourned to meet on the 27th day of December, when the society again met and it appeared that the sum of one hundred and sixty-eight dollars had been paid in by that number of members, paying one dollar each to the Treasurer

of the society; and the proper certificate and verification being made to the County Auditor, an additional sum of one hundred and twenty-seven dollars has been drawn from the county treasury, making now in the treasury of said society two hundred and ninety-five dollars. The society at its meeting last mentioned appointed Calvin Fletcher, President, as delegate from the society to the State Board of Agriculture; and appointed an executive committee of five, to-wit: Powell Howland, Hiram Bacon, Abner Pope, sen., Isaac W. Hunter and James Mars, to whom the business of the society is intrusted, and who are particularly charged with all arrangements, preparations and regulations for a county fair, to be held next fall. Said executive committee and delegate to the State Board, were instructed to use exertions to procure such amendment to the law of last winter, that all assessments by or payments to any city or corporation for licenses to exhibit menageries, circuses, theatrical performances, or other shows, shall go to the benefit of agricultural societies and no part to such city or corporation.

It will be perceived, that, from the late period of the season when our organization took place, no fair has been held; consequently no comparison of skill in agriculture has been exhibited, or statistics obtained, wherefore the several interrogatories propounded by the State Board cannot at present be answered.

The undersigned would remark however that there is an evident improvement in agricultural and mechanical skill in the county. An increase of the great staples which consist mainly in wheat, corn, hogs and horses. It is believed that the number and quality of neat cattle have not been improving, and no pains have recently been taken to improve the breed of hogs. But some new importations have been made, and it is due to a number of our farmers to state, that they have recently made efforts to repair such neglect. It is believed that the law recently passed by our Legislature, and the efforts of the State Board, has and will exert a salutary in-

fluence, give a new impetus to exertions that will greatly increase the taxables of our State, which will add to its treasury an amount far beyond any expenditure they will be called on to make.

In regard to agricultural implements, we are pleased to state that our farmers are introducing new labor saving machines—new thrashers, shellers, straw-cutters and other implements. Gatling's new grain drill has been used by several of our farmers and its operation and results highly approved, the increased yield of grain being variously estimated by several who have used it at from three to seven bushels per acre, others estimating the increase from twenty to twenty-five per cent. The reaper, (McCormick's,) has also been introduced and used the past season, by one of our large farmers, and has well sustained its high reputation. Deeper and better plowing as well as rolling of the land is beginning to meet with practical favor.

There is but a small proportion of wet lands in our county, and upon these in several places the process of underdraining has been commenced by which it has been well ascertained that such lands, (which were formerly unproductive and useless,) are rendered the most valuable and productive at a comparatively small expense.

The wheat crop of the past year was very productive and abundant, exceeding the crop of any former year by at least twenty-five per cent. The market price has been low averaging about forty-eight cents per bushel. The place of market has been Indianapolis, and other points along the railroads in the county.

The corn crop has also been unusually abundant. The average yield per acre may be set down at sixty bushels. We would here say that this average does not fairly represent the capacity of our corn land, but is attributable to carelessness in cultivation, and a general inclination to farm too many acres with too little labor. The land without manure, with good culture, will yield from seventy to one hun-

dred bushels per acre. Such has been the crop of many of our good farmers. The market price has averaged about eighteen cents per bushel.

The peach crop has entirely failed in this county the past season, and apples nearly so; a few orchards however, of the latter have in some localities yielded a fair crop.

Respectfully submitted:

CALVIN FLETCHER, *President.*

ROYAL MAYHEW, *Secretary.*

MARTIN COUNTY.

REPORT OF THE MARTIN COUNTY AGRICULTURAL SOCIETY.

To the Indiana State Board of Agriculture:

The undersigned begs leave to report that, on the 30th day of August, 1851, a County Society for the county of Martin in said State, was duly organized by the election of

JEREMIAH MCBRIDE, President;
DARWAIN A. CLARK, Vice President;
D. R. DUNIHUE, Treasurer;
ABNER R. BROWN, Secretary;

and by the election of eight directors, one from each civil township.

The society is composed of about sixty members. Owing to the very recent organization of said society, the undersigned is unable to present a copy of the printed list of premiums offered and awarded; none having yet been established; or to present an abstract of the treasurer's report. He is also unable to give, for the reasons aforesaid, a statement

of successful contributions on crops, and other improvements, or any copies of addresses on agriculture. The society has fair prospects of success and promises much usefulness.

Corn, pork, tobacco, oats and wheat are the leading products of the agricultural portion of said county. The aggregate amount of these cannot now be correctly given, for the reason already stated. Corn is now selling in the markets of said county for about twenty-five cents per bushel; pork for about four dollars per hundred; tobacco for three dollars and fifty cents per hundred; oats for about twenty cents per bushel, and wheat for about fifty cents per bushel.

The foregoing articles or products are principally sold at Harrisonville, Mt. Pleasant and Natchez, in said county; some small amounts at Dover Hill and other trading points.

JEREMIAH McBRIDE,
President of the Martin
County Agricultural Society.

MONROE COUNTY.

REPORT OF THE MONROE COUNTY AGRICULTURAL SOCIETY.

To the President of the State Board of Agriculture:

The undersigned respectfully submits the following reports:

1. OF THE SOCIETY.—The Monroe County Agricultural Society was formed about two years ago; but in August last, its constitution was changed so as to conform to the requisitions of the State Board. Its organization is of a two-fold character; *first*, to collect statistical and other information, from which the annual report is to be made to the State Board; and *second*, to discuss agricultural questions.

To carry out the first of these objects, eleven committees are appointed, as follows:

1. On grain crops.
2. On grass crops.
3. On stock.
4. On root crops.
5. On fruits.
6. On bushes, timber, &c.
7. On soils.
8. On manufactures.
9. On improvements.
10. On wages and profits.
11. On agricultural papers, books, &c.

The society is to hold quarterly meetings, at which these committees are to report; each committee to make but one annual report, embracing every thing properly belonging to its jurisdiction, and after receiving the sanction of the society, the report is filed away. From these reports, the President and Secretary are to compile their annual report to the State Board.

For the purpose of carrying out the *second* object, the members residing in their respective townships, together with other members choosing to attend, are to meet in the township, once every month, and discuss agricultural questions. This two-fold organization, it is confidently expected, will create an interest in the welfare of the society, and enable it to collect correct statistical and other useful information. This organization has not yet been carried out fully, as time and perseverance, will both be necessary to do so.

2. Of the County.—Along the borders of the county, flow Salt, Beanblossom and Clear creeks, and the western fork of White river. From these towards the centre of the county, the land rises, in some parts, in hills, but generally, in gentle undulations. The hills vary from fifty to three hundred feet in height. In the bottoms of these creeks, the solid sandstone is found, but as the land rises, numerous lay-

ers of limestone of every kind are met with, until on the top of some of the highest ridges, the sandstone is again found, but in small detached portions. The result of this character of the surface and geological structure, is, that everywhere the county abounds in the finest limestone springs and water courses; and, as remarked by a visiter to the recent commencement of the State University, "presents a most romantic and picturesque scenery, which, with its healthfulness, renders it one of the most pleasant locations in the west." Add to these, the educational advantages derived from the University of Indiana, and that admirable female school, under the control of Mrs. McFerson, and now containing ninety-one pupils, and from the large common school fund, held by some of the townships of the county, and nowhere in the State, do we find a county possessing more desirable advantages.

3. Soil and Timber.—The soil of the county is clay, red and yellow, lying upon limestone rock. It is dry and warm, except in some places on some of the creeks. The top soil is a clay loam, and its character as to fertility, may be readily seen from the following extract, taken from the essay of Dr. Lee, on the "study of soils," in the last agricultural report of the patent office:

"If we study the natural products of the earth in connexion with the elements of fertility, we shall find that large, long-lived, and thrifty forest trees grow only in soils which are rich in potash. When the farmer has occasion to burn maple, elm, oak, walnut, hickory, beech, and other hard wood forest trees, he finds them rich in this alkali; and he also finds that soils which produce this kind of timber are always good for agricultural purposes. Their productiveness is not to be ascribed to potash alone (for this alkali exists in combination with flint or silicic acid in an insoluble form) but all the other elements of crops are equally present in an available form; but the existence of an abundance of magnificent

potash-yielding forest trees, will never deceive the farmer as to the natural capability of the soil."

The county, everywhere abounds in these forest trees, and in poplars of the largest size. The top-soil is sufficiently deep to produce the best of crops, and, *under a proper system of cultivation*, would be inexhaustible. It is a soil well adopted to all crops, but the rolling character of the surface, together with its fine springs and water courses, adapt it, especially to stock-raising and dairy establishments.

4. Of Dairies.—Heretofore, on account of our inland situation, and want of market facilities, but little attention has been given to making butter and cheese. We have no dairy establishments, the low price of butter, furnishing no inducement to invest capital in them. Still our county, in proportion to its population, is among the foremost in the State for butter making, the number of pounds according to the recent census, being 150,372. But the rapid progress of the New Albany and Lake Michigan Railroad, will in another year, give to our citizens a railroad communication with the cities at the Falls of the Ohio, and under the encouragement of these markets, our great natural advantages for dairy operations will soon be laid hold of. The butter now made here is sold at Bloomington, the county seat, or bought up by provision peddlers. In summer it brings from eight to ten cents a pound, and in winter, from ten to fifteen cents.

The modes of making it are as various as the quality of the butter itself. But our best butter makers, as soon as the milk is drawn from the cow, gradually heat it until it nearly boils, when it is strained into pans or crocks, and set away uncovered (if protected from flies,) in a cool and well ventilated place, which is usually the spring house. From thirty-six to forty-eight hours afterwards, the cream is taken off and collected in a large crock, and when it is thickened, it is churned. When the cream is warm, or likely to heat easily, the churning is done slowly, for if rapidly, the cream is too much heated and scalds the butter. After the butter

is collected, the milk is poured off, fresh cool water put into the churn, and the churning continued a few moments. The butter is then taken out into a wooden bowl, worked well with a paddle and salted. Every vessel used is kept perfectly clean, and often scalded and sunned, and none but the purest air is allowed to come in contact with the cream and milk. No butter is put down for market.

The churn mostly in use, is the common sort. Lately the atmospheric churn has been introduced, but it is not much liked on account of the difficulty of cleaning the tin tube. Churning by it can be done more easily and quickly, but the disadvantage alluded to, overbalances these more favorable qualities.

5. Of Neat Cattle.—The *general* stock of our cattle is good. About twenty years ago, Mr. John Owens, an enterprising and intelligent farmer, introduced the Patton stock into this county. They were deficient in breadth of hip, and in roundness of rib, but these defects were somewhat lessened by crosses with stock having some Durham blood. The descendants of this importation have become numerous, by crossing with the common stock, but I regret to say that little or no attention has been given to the production of breeding animals. The consequence has been that whilst the general stock has been much improved, the breeds introduced have deteriorated. Our county must import breeding animals.

I am unable to answer the question, "What is the cost of raising till three years old?" I have made many inquiries of our best farmers of the cost of raising different kinds of stock, but no one has pursued any regular plan of feeding, or took any account of the amount and cost of the food given. Generally our cattle are sold when about two years or two and a-half years old, the comparative profit, being regarded by many, as greater at that age than at any other. The cost of the first year's keeping is about two dollars, and of the second about four. Our farmers begin to see the ne-

cessity of having shelter for their stock, and when they shall be stabled, the value of the manure will reduce the cost of wintering. Cattle at two years old, sell from ten to twelve dollars; cows in the spring from ten to eighteen dollars, and in the fall from eight to fifteen dollars.

6. Sheep and Wool.—The remarks I have made of our cattle, apply to our sheep. Mr. Owens introduced the Merino, but his own flocks degenerated from breeding in and in, whilst others, with much benefit, crossed their flocks of common sheep by rams from his flocks. The general quality of the wool is much advanced, but we have no pure blooded animals from which to procure bucks. The price of wool generally, is twenty-five cents, and for the best qualities thirty cents. The last ought to be considerably higher, but owing to the limited quantity produced, buyers of the finer sorts do not come into the county. I cannot state the cost of raising sheep, but they are regarded as profitable stock. Flocks are small; no one turning his entire attention to sheep raising.

7. Horses.—It is doubtful whether our county has made any progress in raising this kind of stock. Still, many fine animals are raised; but these, both horses and mares, are bought up for the Kentucky and more southern markets, and hence, the reason of our not having made a better advance towards establishing improved breeds. But the stallions have deteriorated—many of them are worthless. In nothing can our society exert a more beneficial influence, than by a combined patronage, at remunerating prices, induce owners of good stallions to come amongst us. A stallion of the draft stock has, for the first time, been brought into the county this fall. Prices of horses are now very high.

8. Hogs.—The breeds of hogs are mixed crosses of the Russian, China, Berkshire, Byefield and Grazier. The pure Russian cannot be brought into market soon enough. The China is too short legged to travel, (our markets being usually on the Ohio river,) and the Berkshire does not fatten

enough on the lower sides and belly. A cross of the first two, with the latter, are much esteemed. But it is difficult to effect a permanent cross between them, owing to the tendency of the Russian and China blood to separate, pigs of the same litter often being almost entirely Russian or China. As our markets are on the Ohio, to which the hogs are driven, we salt away but little pork, and hence no particular modes of curing bacon have been adopted. At this time our farmers are receiving three dollars a hundred, gross weight, for their hogs.

9. Of Wheat.—Like all other counties of the State, we have several varieties of wheat. The Golden and Red Chaff, and the White wheat are still sown by many; but they are not so popular as formerly, on account of their liability to injury from the rust. The Mediterranean is rapidly becoming a general favorite. So the Carolina, until last winter showed that it was subject to being frozen out. The Pennsylvania or White Blue-stem has just been introduced. A foreign wheat, called the Royal Banna, has recently been brought to the county, by Mr. John K. Whisenand. He found it in Tennessee, where a friend had, the year before, received a small portion from England. It weighs seventy-one pounds to the bushel. The society, through Mr. Bateman of the Ohio Cultivator, in October last, procured from London thirteen new varieties, the growth of different parts of the world. These have been sown, and specimens of such as may prove valuable will be sent, next summer, to the State Board.

The inland position of this county has led to a general carelessness as to the mode of cultivating this product. But with the coming of the New Albany Railroad, this carelessness will soon vanish. The worst and best modes of putting in wheat, are as follows:

The worst, and perhaps I ought to add, the common mode, is to plough the wheat in in corn ground, in September. Two furrows are run (and those shallow enough) with the shovel plough. No harrowing. Much of the ground thus sown,

has been exhausted by continual cropping, without rest or manure, until it has scarcely any soil left, except what deep ploughing alone could bring up. The average product of such land thus sown, does not exceed seven or eight bushels per acre.

One of the better modes for corn ground is, to prepare the ground for a good crop of corn in the first place. This is done by scattering manure broadcast over a sod. Cattle are often fed with corn fodder over the field, whilst the ground is frozen the winter previous. Early in the spring the ground is *double* ploughed. In July, when the last ploughing is given to the corn, the wheat is carefully sown, some sowing but the width of a row at the same time. It is ploughed in with as many furrows as are necessary to stir all the ground, after which it is harrowed with a small harrow. The yield by this mode ranges from 20 to 30 bushels to the acre.

Another of the best modes is, to break up a clover field, the clover not being cut or pastured close, by ploughing five to six inches in depth; after which it is harrowed. When the clover has rotted, the wheat is sown and ploughed in with the shovel plough, and the ground levelled with the harrow. The product is about the same as by the other method.

The *time* of seeding with our best farmers, is much earlier now than it was a few years since. The months of September and October are, usually, so very dry, that wheat sown in these months does not root deeply enough to endure the rigors and sudden changes of our winters. Sometimes it is sown as early as the beginning of July; and I have heard of only two or three instances in which the wheat was supposed to have been jointed, and killed in consequence. But usually, when sown even so early, it has done well.

The quantity of seed used is from one to one and a quarter bushels to the acre. This is not enough, especially when harrowed in and sown late.

The time of harvesting is in the last week of June and the first week of July. It is cut with cradles, shocked, stacked and thrashed with machines. The markets are at Bloomington, Gosport, and Harrodsburgh, and a good deal wagoned to Louisville and New Albany. Price this fall, 40 to 45 cents.

We use no preparations for our seed, and adopt no remedies against the fly and weevil. Our greatest enemy, in this fall, is the dry weather, especially as since our farmers *will* not plough when the ground is dry. They wait until the rain comes, and when it does, it not unfrequently becomes dry again before they are ready to sow their wheat. The greatest preventive against the evils resulting from dry weather, is

Gatling's Wheat Drill.—Through the spirited agency of Austin Seward, of Bloomington, who makes everything in iron, from a horse shoe to a steam engine, this drill was brought into our county in August last. Wheat was sown with it about the first of September, when the ground was very dry, and in fields in which, after being thoroughly broken up and harrowed, the wheat was ploughed in with the shovel plough. The wheat put in with the drill came up immediately, and endured the extreme drought, which lasted until the 20th of October; but that which was sown and ploughed in did not come up until after the rain, and then, looking as badly as it could. This favorable result for the drilled wheat is easily accounted for. It is deposited so deep as to be beyond the influence of the hot sun and drying winds, and within that of the moisture arising from the subsoil. About thirty-five acres of wheat were sown on my farm in the latter part of August, and had the drill been used to put it in, the crop would have been worth not less than one hundred and fifty dollars more than it can possibly be worth. The drill becomes the more important, from the depredations committed on the grain, which does not sprout immediately after being sown. Having sent to Indianapolis for the Pennsylvania, or White Blue-stem, with which I had

about 15 acres sown, in the latter part of August, I felt anxious for its favorable growth. From the time it was sown, until the 20th of October, no rain fell upon it, and it was in a few shaded patches only that it came up, during this period. Upon examining it, a short time before it rained, I found the wheat in all stages of growth, from the shooting of a single root of an eighth of an inch in length to many roots and the stem. But I found numerous grains with a small round hole in them, the germ being entirely gone. There was no appearance of decay, for otherwise, the whole grain was perfectly sound. Patches of these grains were found without a single whole grain. Accidentally I found the cause in the red ant. After the rains came on, I examined the wheat two or three times daily, and found all grains growing well except those destroyed by the ants, which, I regret to say, were the greater part sown. By rapid growth of the grain, and, perhaps, by covering deeply, their depredations might be avoided; or by steeping and rolling in something offensive to the ant.

Since writing the rough draft of this report, I conversed with Mr. Taggart, an intelligent farmer of Brown county, now its Representative, about these ants. He informed me that in the fall of 1850, after his wheat had come up well, he observed it getting thinner on the ground. His neighbors noticed this in their fields also, and attributed the cause to the fly. But upon examining his fields more closely, he was surprised to see numerous red ants cutting it down, and eating it off into the grain itself, thus entirely destroying it.

I have mentioned these things to elicit farther observations; and, as to the drill, will only add, that we found it to work well in cloddy ground, and which had tall weeds growing upon it before ploughed.

Cost per acre of raising wheat.—Having had a few acres of wheat put in, without any aid on my own part, the cost, I find, is about as follows:

Interest on land, estimating the average value of land over the county at $10 per acre		60
Ploughing and harrowing once		$1 00
Sowing and harrowing in		20
Thrashing, including all incidental expenses		1 50
Seed, one and a quarter bushels		62½
Cutting, binding, shocking and stacking		1 00
Hauling		25
		$5 17½

Credit:

By 15 bushels of wheat, at 40 cents	$6 00	
By value of straw	1 50	
		$7 50
Profit		$2 32½

10. Of Corn.—There is no subject that has given rise to more animated discussions in our society, than the proper mode of cultivating corn. By its cultivation a large portion of our lands has been exhausted, and this exhaustion, in the opinion of many of us, has resulted not only from taking the corn and fodder from the ground, but also from the exposure of the soil, by frequent ploughings, to the sun and atmospheric influences. To avoid so many ploughings was thought to be a desirable object, both to save labor and decrease this exposure. On this question of exhaustion by tillage, I find some remarks in the essay of Dr. Lee, on soils, already referred to, so appropriate that I may be pardoned for quoting some of them.

"Tillage can do much to promote fertility; but it cannot create something from nothing nor change one elementary body into another. But tillage is usually more efficient to impoverish an arated field than to improve it; and it is this deteriorating effect of cultivation, irrespective of all crops, to which we desire to call particular attention. The chemi-

cal changes in the soil, produced by ploughing, are quite independent of the presence of plants. Tillage dissolves more silica, potash, soda, lime, magnesia, chlorine, iron, mould, sulphuric and phosphoric acids, than would be dissolved without this operation. After tillage has dissolved the elements of crops, they do not remain long in well-drained land, if no plants are present to imbibe the water that holds them in solution. Wherever the water runs, most of the organic and inorganic constituents of vegetables go with it, after they are fairly dissolved, like common salt in water."

These observations apply, in all their force, to a county which, like Monroe, has a roling surface, by which the water is rapidly carried away. To lay hold, immediately, of these elements of fertility, is the only method by which they can be retained, and this can best be done by sowing, at the time of the last ploughing, some crop that will take them up: Wheat, rye, clover, would all answer; but no one better, if as well, as rye. It would afford a good winter pasture, and by feeding the grain to hogs, on the ground, and immediately turning under, the elements of fertility would be again returned to the soil, in a form the most ready for production.

To avoid this dissolving of the elements of fertility, as much as possible, various experiments have been made, and these go to show, that on sod land, deeply broken up, one or two ploughings, after the corn is up, are all that is necessary. Sixty bushels of corn to the acre have been raised in our county, without any culture, after being planted. I have raised what was supposed to be about one hundred bushels to the acre, with but one ploughing after the corn was up. The land had been a pasture field, was manured before ploughed, and was sub-soiled when broken up. The season was favorable. The general opinion of the members of the society is, that in land such as ours, corn should be put in on a sod, double ploughed, manured either before being ploughed, or, if after, to be harrowed in as a top dressing, and the number

of ploughings, after the corn is up, to be governed by the season.

The cold eastern winds of the spring bake our ground about the time corn is coming up, and create a necessity for stirring the soil early. A cultivator is the best implement for this purpose, but we have none amongst us. These winds cool the ground, too, and hence the great utility of a top dressing of manure to keep it warm.

We plant in the last week of April, and to the middle of May. The varieties used are numerous—white, both dent and gourdseed, the large yellow, and mixed. Within the last four or five years a much larger quantity of the yellow has been raised, it being considered as possessing greater fattening properties.

The average product is not more than 35 bushels per acre, but from 50 to 75 can easily be raised. The old practice of cultivating a field in corn year after year, until the fertility of the soil is exhausted, is yet too prevalent to have a higher average. But a change for the better is taking place. Our market is at home. Prices from 20 to 25 cents per bushel when delivered.

11. Of Oats, Rye and Barley.—The oats crop of our county is a large one. I cannot state the average number of bushels to the acre, as the cultivation differs so widely. The worst mode is to sow on ground from which wheat was taken the previous season, and then plough in with the shovel plough, followed, sometimes, by the harrow, and, oftentimes not. A drought, which frequently happens in May and June, cuts short the crop thus put in. But when the ground is broke up deep, then harrowed well, and the seed ploughed in, followed by the harrow, the crop resists the drought, and the product is from 40 to 60 bushels to the acre.

Rye and barley are but little cultivated.

12. Of Potatoes.—The kinds in use are the Shaker Red or flesh color, Pink-eye, Snowball, and white Meshannock. Some Blues and early kidney are cultivated. The last far

excel any other sort as an early potatoe. They become mealy before any other, and, on account of their early maturity, require a rich, moist soil. No great amount is raised for exportation, on account of our hitherto inland position. Next to bad cultivation, our greatest enemy is the potatoe bug, which destroyed a large portion of the crop this season, and, in consequence, potatoes are now selling at Bloomington from 40 to 50 cents per bushel. No certain remedy against the bug has yet been found. Some have succeeded in driving them away, but others have failed. I tried lime scattered over the vines when the dew was on, and with success; but this application must be made almost every day.

13. Of Grass.—This ought to be the most valuable product of our county. But little progress, however, has been made in the mode of putting in or cultivating our meadows. The usual manner of putting in meadows is to sow the seed on wheat, either in the fall or in February, or on oats in the spring. If all things are favorable, tolerable success attends this way of seeding; but if the weather is dry, or should become hot soon after the seed has sprouted, much of it is destroyed. An individual informed me that the seed alone cost him about two dollars per acre in unsuccessful endeavors to put his land in meadow. The greatest difficulty, I think, is in our want of proper farming utensils. From my own experience, (which is not very great,) and my observation, (which is much greater,) I am satisfied that the *roller* would obviate the difficulties we meet with. For timothy meadows, the soil ought to be good, and should be ploughed well, and harrowed *on the same day it is ploughed*, until not a clod remains. It have italicised the words "on the same day it is ploughed," because it is the common practice with our farmers to put off harrowing until the whole field is broken up. This is a bad practice in our clay soil. When first turned, the clods crumble at the least touch; but if left exposed to one or two days of sunshine and drying winds, the harrow has not much effect on them. The timothy seed that falls on

them or near them is not sufficiently covered, and, in consequence, perishes. After the seed is sown, it should be rolled in. Grass seed of all kinds, and even wheat, requires the ground to be compact around it, else it is greatly endangered by the light showers we so frequently have in the fall and spring, which are sufficient to sprout, but not to beat down the earth around the seed.

Our meadows are usually timothy mixed with clover. This preference is given because the clover keeps the ground loose, and when timothy alone is sown, moss grows more freely, which is destructive to the grass. Our best farmers harrow their meadows every spring. In addition to this a liberal dressing of rotted manure ought to be given.

The average quantity of hay is not over one and a quarter tons to the acre. None is exported, and the present price, at Bloomington, is $7 50 per ton.

14. Fruits.—This county is progressing, not, however, as rapidly as it ought, in the culture of the apple. The nursery of Mr. Turner, near Bloomington, furnishes a home supply of the best. Our soil is admirably adapted to fruits of all kinds, and the slopes of the hills furnish any number of excellent sites. We have grafted apples of the usual kinds, but I am unable to state the comparative excellence of each as grown in our soil and climate. Mr. Turner, the chairman of the committee on fruits, will furnish full statements on this subject, for the next annual report. Peach trees are plenty, but not grafted ones. These are more hardy, but still the crop is very uncertain. The common cherry is the Morello, but these are not so good bearers as the May Duke and Early May. The latter are now coming in use, and prove to be hardy, large fruited, and full bearers. Various varieties of the Biggarreau, Heart and Duke, have recently been brought into the county, but are not yet in bearing. The plum is not much cultivated, on account of the depredations of the Curculio; and the pear but little, as it is so often destroyed by the blight. From observation, I am inclined to believe that

all these fruits, the apple excepted, would do much better if the ground beneath them was not cultivated, and a sod allowed to cover the ground.

The grape is receiving some attention. There is a small vineyard in the county, planted by Mr. Stine, which produces well. Several citizens of Bloomington have attempted its cultivation on a small scale, but have been discouraged by the rot. In that place I have about one hundred and fifty vines, and this disease never affects them; which I attribute to the locality and mode of cultivation. This fall I planted about three hundred vines, (Catawba) purposing to increase this number as rapidly as possible. My mode of cultivation is the reverse of that pursued by the Germans. I set my vines ten feet apart, plant a row of corn (drilled) between the rows of grapes to shade them, and never give any pruning in the summer, but a thorough one in March. A free circulation of the air must be secured by the locality. I avoid making the soil too rich, especially with stable manure. The ground ought to be broken deep—from eighteen to twenty inches, and this can most easily be done by running three ploughs in the same furrow—two turning over, and the third a sub-soil plough. This depth gives a good under drainage, which the grape must have, in clay soils especially. I abhor a western exposure, avoid a southern one, and prefer an eastern or a north-eastern one.

The rose bug destroys the grape when in blossom. Within the last four years this pest has become known to us, and now the bugs are so numerous that they cover the wild vines in the woods, and attack the early cherry; such as the May Duke and Early May. They are easily destroyed, however, by holding a basin with water in it, under them and then touching them, when they will drop down, and fall into the water.

The Catawba is the best grape we have. In every way it is superior to the Isabella, and it is less subject to the rot.

Having given a general outline of the present condition of

our agriculture, as to those matters referred to by the State Board in their published inquiries, I desire to direct attention to some highly injurious errors that prevail amongst us.

1. Waste of Manure.—Many of our farmers suffer their wheat straw to go to entire waste, and pay but little attention to the barn-yard manure. They fatten their hogs in pens, built close by creeks and springs, that the hogs may easily get water. The first heavy rains of winter wash the manure into the streams, and is thus lost to them. The ash pile is suffered to accumulate for years. Thus is the land impoverished by continual cropping, and restoring nothing to it.

2. Trampling Fields.—One of the injurious consequences resulting from the cultivation of corn, is the trampling of the field during winter and early spring, by turning stock into it to gather up the fodder. This ought to be done in dry or very cold weather only, but the fence once let down, the stock is suffered to have free access until the field is again to be ploughed. Then it is found to be cloddy and heavy, and in a great degree unfit for cultivation.

3. Want of blue grass pastures.—Many of the evils I have alluded to, result from this want. To supply it, the farmer toils through the spring and summer, to raise food with which to keep his stock through the winter. This food is corn and corn-fodder. His arable ground finds no rest, whilst in general, one-half his land remains a forest. The recent census shows that in Monroe county there is a geater number of unimproved acres than improved. The former are 92,473, the latter 83,200. The capital invested in the first is not less than three quarters of a million dollars, yielding but little income. All of this land could be made productive with but little labor, and no loss of valuable timber. Every acre of our woodlands could be turned into blue grass pastures. Why it has not been done, I cannot state, for I have yet to meet with the farmer who did not, at once, admit their great value. It is neither expensive nor laborious to

make them. They ought to be reserved for winter and spring pastures. Every farmer owning 160 acres should have one-half in blue grass—40 acres untouched until the first of December, and another 40 for the months of April and May. His winter feeding would be not a half what it now is, and his stock always kept in far better condition. His own toil in the spring and summer would be thirty per cent. less, and the exhaustion of his land fifty per cent. less. Once set, the grass would always keep its hold, and the timber become more valuable, for the ground being freed from that which is worthless, would better sustain the remaining trees. And I know of no sight that the eye would rather look upon, than such a county as Monroe, with its undulating and hilly surface, covered with meadows and woodland pastures, through which coursed over limestone rock, its pure and numberless streams of water. As it now is, unenclosed and uninviting woods meet the eye everywhere.

As the attention of the farmers of our State, as well as those of our county, *must* be directed to this subject, I avail myself of this opportunity to give the most approved modes of making these pastures, as practised by some of our best farmers.

1. Of woodlands that have no weeds or wild grass.—In the spring or summer deaden all useless timber and saplings; cut down none but the smallest saplings. Late in the fall when all the leaves are down, burn them clean, for they prevent the seed from reaching the ground, and consequently it will not vegetate. If they are not in sufficient quantity to burn, rake them together, and then burn them.

In February, sow the seed. As to the quantity there is no danger of putting on too much, but much that too little will be put on. Blue grass grows weak at first, whilst it flourishes well when very thick. Some of our farmers prefer sowing timothy with it, as it furnishes pasture immediately, but is rooted out by the blue grass.

2. Where woods have been gradually thinned, weeds and

wild grasses take hold, and the ground is harder. As a general rule such land ought to be plowed, if very thick with weeds and grass and hard. It should then be leveled with the harrow and sown as already directed. But some of our farmers have succeeded without plowing. The after culture consists in keeping out the iron-weed. This can be done only by eradicating it, whenever it shows itself. One of our most experienced and intelligent farmers, Mr. Edward Borland, informed me that for about sixteen years he has mown them down, once every year and sometimes twice, on one of his pastures, but without any other effect than to make the stalk more slender. It would, he said, have been much cheaper to have grubbed them up at once. Where they have got no hold, he carefully pulls up every one that shows itself.

Many autumns are too wet to burn the leaves, and a farmer having purchased seed risks sowing it on the leaves. This is wrong. Either he should wait, or by raking the leaves be enabled to burn them.

The kinds of seed are the Kentucky and English blue grass. The latter is preferred for winter pastures, as it continues greener longer, and grows sooner in the spring. It will grow in thicker woods than the Kentucky. A considerable portion of this seed is annually gathered in our county.

On the general subject of the present condition of our agriculture, I have but to add, that the large and constantly increasing amount of clover sown in our county, gives one of the best evidences of our progress. But there remains much to accomplish, and a wide field is opened to our association, for the performance of that duty which it owes to society and the occupation of its members.

The law makes it my duty to lay before the State Board copies of all addresses that have been made to the society. In November last, the late President Wylie addressed us extemporaneously, having given him but two days' notice of our desire that he would address us. I requested him to give

me a written copy of his remarks, but on the fifth day after their delivery, he departed this life, leaving a void in our community that cannot be filled, especially with those, who like myself, enjoyed his instruction and counsel, and for more than twenty years, a social intercourse, the remembrance of which no time or circumstances can obliterate.

His address to our society was his last public discourse, and agriculture was, of all other subjects, the most fitted for it, because it linked together his earliest and latest days. As indicative of the character of a large portion of the address I give the following contrast which he drew between the country and town life.

Referring to the condition of agriculturists as regards the welfare of their children, he said, that during his long experience as a teacher, (he had been President for forty years) he never knew the son of a farmer to have failed in educating himself, whilst the sons of those following other occupations often failed. He attributed their success to the fact, that farming gives constant employment to every portion of the farmer's family, and thus, from earliest infancy, his children acquire habits of application. The labor of the day invigorates their system, and at night they are glad to seek repose, and thus they grow up with strong constitutions, sustained by moral habits. But those living in towns, too often spend the day in idleness, and at night seek excitements by which to pass away their time, thus enervating their physical powers, and acquiring vicious habits that destroy their success in after life. The college, he said, was no place to change these habits. For good or for ill, they are formed under the parental roof.

The farmer, it was true, seldom accumulated what was termed a fortune, but a competent living, such as it was best for man to enjoy, was always within his power. It was an existence freed from the moral dangers to which those congregated in towns and cities are liable, and secured that health without which no enjoyment could be derived from

wealth. So strong were his convictions of these truths, that he was led to come to this State, where he could purchase land upon which to bring up his own family. He himself had been raised upon a farm, and he had first read the Georgies of Virgil, whilst resting, although, he added with a smile, he sometimes whilst thus engaged, allowed the horses to eat longer than his father thought necessary.

I have only to add, that in preparing this report, I have endeavored to give a general outline of the present condition of the agriculture of Monroe county, with such observations as I thought best calculated to correct some prevailing errors. My presence at Indianapolis, for some weeks past, required me to prepare the report there, on account of which I have been deprived of the assistance of Mr. Samuel Dunn, the Secretary of the Society, whose intelligence and greater agricultural experience, would have made his aid valuable.

LEWIS BOLLMAN, *President.*

December 25, 1851.

MORGAN COUNTY.

REPORT OF THE MORGAN COUNTY AGRICULTURAL SOCIETY.

To the President of the Indiana
State Board of Agriculture:

The following is a copy of the printed list of premiums offered by the said society at its first annual Fair, held in Martinsville on the 25th day of October last, together with an abstract of the Treasurer's report, to-wit:

ON HORSES, JACKS AND MULES.

Best horse, William Cunningham	$5 00
2d best horse, William Knox	Diploma.
Best jack, William Cunningham	2 00
2d best jack, William Knox	Diploma.
Best year old colt, Ira Hadley	2 00
2d best year old colt, Wm. Hughes	Diploma.
Best sucking colt, Wm. Knox	1 50
2d best sucking colt, Henry Sims	Diploma.
Best brood mare, John A. Riggins	3 00
2d best brood mare, Allen Hicklin	Diploma.
Best mule, James M. Mitchell	3 00

CATTLE.

Best bull, Elijah Paddock	4 00
2d best bull, Grant Stafford	Diploma.
Best cow, Elijah Paddock	2 00
Best calf, Elijah Paddock	1 00
2d best calf, Elijah Paddock	Diploma.
Best yoke of oxen, James C. Henderson	2 00
2d best yoke of oxen, James C. Henderson	Diploma.

HOGS.

Best boar, James Cunningham	2 00
2d best boar, W. H. Craig	Diploma.

GRAIN.

Best bushel of wheat, Joel Mathews	1 00
2d best bushel of wheat, Isaac G. Fletcher	Diploma.
Best 60 ears of corn, George W. Egbert	50
2d best 60 ears of corn, Robert B. Major	Diploma.

ARTICLES MANUFACTURED OF LEATHER.

Best saddle and bridle, Thomas Nutter	1 00

DOMESTIC MANUFACTURES.

Best 5 yards of jeans, James Stockwell	1 00
Best 8 yards of flannel, Isaac G. Fletcher	1 90

VEGETABLES.

Best peck of onions, Isaac G. Fletcher	50
Best bushel of Irish potatoes, Absalom Jarret	50
Best 10 lbs. of cheese, Amos Lawrence	50
Best butter, James Stockwell	50

ABSTRACT OF TREASURER'S REPORT, MADE NOVEMBER 27, 1851, TO WIT:

Receipts.

Received by subscription	$74 00	
Received out of county treasury	50 00	
Total receipts	———	$124 00

Disbursements.

Paid for blank book for Secretary	1 50	
Paid on account of premiums	35 75	
Total disbursements	———	37 25
Leaving a balance in the treasury at the date of said report, of		$86 75

There was no statements of successful contributors for premiums on crops, &c., detailing the mode of tillage, &c., handed in.

This society was organized in August last, by electing

Wm. H. Craig, President;
Wm. G. Quick, Vice President;
James Jackson, Treasurer;
L. Reynolds, Secretary;

And Directors for each township in said county.

A committee was appointed to draft a constitution for the government of the society, which was thereupon reported and adopted.

At a meeting of the society, held in Martinsville, on the 23d day of August last past, a committee before that time appointed for that purpose, reported a list of articles to be offered in competition for premiums, which was adopted.

And a committee thereupon appointed to fix the amount of premiums to be awarded on the respective articles therein specified, at the first annual fair, to be holden on the 28th of October, 1851, which said committee afterward reported the same.

The society held its first annual fair on the 25th day of October last, which, owing to the late period at which the society was organized, and the inclemency of the weather, was rather poorly attended, though better than was anticipated under the circumstances.

There was a meeting of the Board of Directors held on the first of the present month, at which there were committees appointed, consisting of three individuals in each township, to solicit subscription of stock and members.

The society has now seventy-five members, and bids fair to become useful—seems to be progressing very well, and growing in interest. We anticipate a splendid fair next fall, in fine stock, farming, &c.

There have not been any addresses delivered on the subject of agriculture in the society.

The greatest staple of our county is hogs, as appears from the census returns of 1850. We have 1,448 farms in this

county, which will average not less than thirty fatted hogs each, making 43,440 fatted hogs in the county.

Wheat is extensively grown here, and will average about 100 bushels to the farm, which would give 144,800 bushels.

Corn is raised in great abundance, the average yield being about 1,000 bushels to the farm, making 1,448,000 bushels. The average yield per acre of corn, is about 50 bushels, while in the bottom farm we frequently get 100 bushels per acre; 15 bushels of wheat is about an average crop per acre, and 30 bushels of oats.

The average price of pork for this season is, $3 75; wheat, 50 cents; oats, 15 cents; all of which are principally sold at Franklin, Edinburgh and Madison. Though a large quantity of pork is packed at Martinsville by our merchants, which together with large amounts of wheat and corn, are annually shipped in flat-boats to New Orleans, and other points on the river. It is supposed that one-half of all the staple products of the county are thus conveyed off to the latter market; though this method will soon be abandoned, as we will have a railroad in operation early next season.

Since the formation of our society, our citizens have commenced looking about for improved breeds of cattle, hogs, &c. James Jackson, Esq., our present Treasurer, has taken the lead in this matter, by bringing in a pair of fine colts, at a large cost.

Numerous agricultural papers and pamphlets are being subscribed for, and circulated in this county.

W. H. CRAIG,

President of Morgan Co. Ag. Society.

L. REYNOLDS, *Secretary.*

OHIO AND SWITZERLAND COUNTIES.

REPORT OF THE OHIO AND SWITZERLAND COUNTIES AGRICULTURAL SOCIETY.

To the Indiana State Board of Agriculture:

In accordance with an act of the Legislature of the State of Indiana, approved February 14, 1851, we submit to the State Board a brief report of the organization of the agricultural society composed of the counties of Ohio and Switzerland, in the State of Indiana.

After having held three meetings in accordance with previous notice, the society was fully organized, and the Treasurer, Jacob R. Harris, reported that there was an amount of money in his hands sufficient to authorize the society to draw from the treasurers of the two counties, the moneys in their hands, that the law gives to the societies organized by the act above referred to. By an order of the society the officers were requested to present to the treasurers of Ohio and Switzerland counties the proper vouchers, and draw therefrom the moneys due the society, and deposit the same in the hands of the treasurer.

The meeting then adjourned to meet at Quercus Grove, on the first Saturday in April, 1852.

JOHN HALL, *President.*

W. M. FRENCH, *Secretary.*

Inasmuch as this is the first society that has been organized in this part of the State, it might not be considered out of place, to speak of the principal productions of the different kinds of our soil.

Our lands that are the most productive, lie on the margin

of the Ohio river and Laughery creek; they are very valuable in consequence of their richness, many portions of which will never wear out, because of receiving a fresh coat of manure at every spring freshet, and some seasons oftener. Indian corn is grown in these lands in larger quantities than any other grain. In fact it may be said to be the leading and decidedly the most important and profitable crop to the Ohio county, and also to the Switzerland county farmer. The article of Indian corn is more or less used as food in various forms, entering into the entire system of the farmer, furnishing in large proportion the most economical, and desirable extra food for working-cattle, horses, beef-cattle, hogs and stock of all kinds; and from the comparative certainty of obtaining a crop, under all the vicissitudes of seasons and accidents, it would be hazarding little to say, that fifty per cent. of the entire profits of Ohio county, and probably Switzerland too, in agricultural operations flow directly or indirectly from the production of Indian corn alone. The manner of raising Indian corn is so uniform and well understood by the citizens of the State, that it would be unnecessary to say anything on that subject. Next to corn, is the article of what we in this country usually denominate Irish potatoes, they are probably raised in greater quantities in Ohio than any other county in the State. It is not an unusual thing for one farmer to cultivate forty acres in one year, producing from fifty to three hundred bushels per acre.

In Switzerland county, after leaving the bottom lands bordering on the Ohio river, the soil is better adapted to the production of grass than any other article, and it may of a truth be said of this county, that but few counties in the State excel her in the improvements and facilities brought directly to bear in the culture, saving, curing and preparing this commodity for sale or shipment. The same is true to some extent of Ohio. The farmers are beginning to view the subject of agriculture as a science, and we think that as the soil wears, this subject will increase in importance, and

be more thoroughly examined by those interested. Heretofore there was not the inducement for farmers to study the subject as now, from the fact, that the lands were so rich and productive that a large crop could be realized every year by going through a certain routine of work, without paying but very little attention to the seed or preparation of the soil. And in addition to this there has been a prejudice in the minds of the farmers to anything like book farming. They think that they are taught by experience that it is better to stick to the old land marks, and that nine-tenths of all experiments in our branch of industry better suits for periodicals and common talk than for profit. It is true however, that improvements of real practical value are not of every day occurrence, but are rare, and ought when they are sought out to be treasured up and be extensively circulated among the farming community.

There are many important items which we would like to lay before this board, but being disappointed of the means of information, by John Dumont not being at home, who, I conceived to be most capable of giving a concise report of the cultivation of the grape vine in Switzerland county, which we will report at an early day and lay it before this board.

Respectfully submitted:

JOHN HALL,

President of Ohio & Switzerland Co. Ag. So.

ADDRESS OF JOHN DUMONT, ESQ.,

Delivered at the organization of the Switzerland and Ohio County Agricultural Society, Oct. 18, 1851.

Fellow Citizens of Ohio and Switzerland Counties:

The sustenance and apparel of all mankind are derived from the earth, and the waters of the earth.

The small portion that is obtained from the waters by fishing, makes it a self-evident truth that agriculture is the paramount interest of all the inhabitants of the globe.

Whatever be the calling, profession, trade or business of those who do not cultivate the earth, they are principally clothed and fed by its productions.

Commerce, so beneficial to man, would cease to exist were the cultivation of the earth neglected; or if it continued it would be limited to the transportation of fish and the production of the mines, and the fisheries and the production of valuable metals, and their manufacture would dwindle too low to be the subjects of commerce without the aid of bread and clothing that are supplied by husbandry.

The fields of the husbandman supply the cotton and wool, flax and hemp, and the cocoons for silk, which give employment to the manufacturers of clothing and cordage. The grain and meat and butter supplied by the farmer are their principal sustenance. Without the supplies furnished by the loom and other mechanical productions, and the fields, commerce would be almost annihilated. Manufactures and commerce depend upon the productions of the earth for their continuance. The earth is our mother, on whose lap we repose, by whom we are nourished, with whose beauties delightful sensations are produced. Its culture leads to a contemplation of the Divinity who created it. The tillage of the earth fills the heart with adoration of the great giver of all the blessings derived from its cultivation. What pursuit so noble? What calling so elevated? What avocation so sublime? None. The Emperor of the Celestial Empire, in all the days of the year, is never so illustriously employed as on that day which he devotes to holding the plow, in the presence of his mandarins and his people; an example to them that the cultivation of the earth is worthy of the hands of him who is first of the Celestials, and who esteems all other people as barbarians. A calling so highly honorable, so transcendantly useful, is worthy of being brought to the highest state of perfection—to be understood thoroughly by all who are engaged in it. This is so far from being the fact, that a large majority of farmers in this country are grossly ignorant of the best means whereby to derive pleasure and profit from their avocation, and some, alas! far too many, have not even a desire for information.

A science almost boundless in extent, and endless in improvement, as that

of agriculture is, and must remain, from which nearly all mortal enjoyments are derived, is of so vast an interest to man, that it is almost wonderful it should so long have been neglected by the inhabitants of the great west, and that it should be almost the last to be noticed as worthy of acquisition. But there are reasons which have naturally tended to its neglect. The soil was new and unsurpassed in fertility, game abounded, and the half-hunter life of the pioneers procured abundance of food with a small amount of tillage. The earth yielded vast products almost spontaneously, and the thought that what now is will be likely to remain, induced indolence and carelessness. They neglected and mismanaged the soil until it became greatly deteriorated, without acquiring the knowledge for its preservation or improvement, leaving to after generations to acquire the skill and perform the labor of its resuscitation.

Necessity gives rise to industry and invention, and the more sterile parts of the world, when densely populated, are the best cultivated. The necessity that has driven man, in all such countries, has excited all his faculties to procure food and raiment, and these he has procured by causing the barren soil to bring forth its products in abundance. To effect which, the acquisition of knowledge was necessary. Without skill he would not have improved his condition, but would have toiled on as the ox, and each succeeding year would have yielded him a more scanty recompense.

The Egyptians invented irrigation, and supplied the want of rain so prevalent in that country, by the waters which they preserved in canals and reservoirs, from the overflowings of the Nile. And that King of Egypt who made an artificial lake, called Moeris, in which to preserve a vast amount of water to supply the wants for irrigation, did more for his country and mankind, than all the ancient Pharaohs who built the pyramids, whose names are forgotten, and whose bodies are subjects of traffic—mummies, useless in death as their lives were inglorious.

By skill and industry, the water that runs uselessly from the elevated lands, may be made subservient to the production of grasses and grains, and to supply the frequent deficiencies of rain. In level places, where the advantages of conducting the water through races cannot be obtained, dams with trifling expense may be made on every little run, to save the water for the irrigation of the adjacent grounds; and by cisterns, a sufficient supply of water may be saved to insure a luxuriant garden to every householder. Were these advantages generally known, as well as the most eligible modes of their application, they would soon be in general use, if not deemed indispensible to the practical farmer and gardener.

In the neighborhood of Edinburgh in Scotland, irrigation has been brought to such perfection that irrigated meadow lands have rented for seven fold the price obtained as rent for the same meadows before this mode of enriching them was applied.

In China, where the country is peopled more densely than any other part of the globe, they have learned and practice the arts necessary to feed and clothe so great a population. There, all that can enrich the earth, all that is

food for vegetation, either in solid or liquid form, is carefully preserved and skillfully applied. Every acre, every foot of land is made to yield.

In Europe, agriculture and gardening have been brought to great perfection, and in those countries skill has eventuated in great wealth to the owners and tillers of the soil.

In the eastern parts of the United States, aided by agricultural associations, astonishing increase in products has been obtained. The meeting of these societies, and the exhibitions at the fairs, have given a general interest to the subject; the beholders seeing what has been done by others, reasonably conclude that they can do as much or more. They have treasured up the information of the means to attain the object, and applied their knowledge and industry to equal and surpass what others have accomplished. Thus a whole agricultural people have been changed from toiling plodders, who followed the same invariable routine from sire to son for ages, to be enlightened, scientific, and wealthy farmers.

Without books or newspapers devoted to the subject, rapid and valuable advances cannot be attained. The mind must be stored with knowledge to give efficient direction to the hands. What is learned by toil and experience is the most enduring and valuable knowledge, but is too slowly acquired to be extensively valuable. When the divers experience of many is recorded and made public by printing, and generally read by those engaged in the same pursuit, it will result in a march of mind that may be compared to the improvement made by the electric telegraph, upon the post-horse system of conveying news.

With a population of nearly 4,000 voters, why do we not have and support one or more agricultural papers in these counties? Because the subject of agricultural improvement is not as yet, one of general interest. But let a society be formed and fairs be established, and the public mind will be on the enquiry; the people will be hungry for information, and they will be fed.

A farmer properly educated for his business, is to no small extent a learned man. He is master of the greatest terrestrial subject of human knowledge. The application of chemistry enables him to apply advantageously, the proper nourishment for plants and animals. He should be informed of the constituent parts of the earth which he cultivates, to enable him to know what ingredients are wanting to render it fertile. The more extensive his information, the better is he fitted for the successful tillage of the earth. Nor will it be difficult hereafter for men to become scientific farmers, if we of the present day perform our duty and begin the work. Information will flow in and be greedily devoured, and the youths as they grow, will from infancy be imbibing instruction by both theory and practice, and many of them will become learned, as their bodies have increased in stature, without themselves perceiving the progress.

Many parents are mistaken in educating their sons for the learned professions, thinking thereby to elevate their rank in society, or to enable them to accumulate wealth, or to render their future lives less laborious. The lawyer, the physician, or divine, who has much business and attends to it faithfully,

leads a more laborious life than the prudent and managing farmer. The successful merchant must necessarily be a laborious man: sleepless nights and anxious days, are a portion of the tribute paid by merchants, lawyers and doctors, for their fortunes and their celebrity.

Of the young man who is about to select a business for life, I would inquire, do you wish honors? Then apply yourself to agriculture; for in no station can you acquire more glory than in being perfect master of this business. The great Washington was a farmer, and the first and best farmer in the thirteen United States. Cincinnatus was called from the plow to be the dictator of Rome. King David was a shepherd. There is no calling in life so favorable to popularity as that of the intelligent farmer. Do you wish wealth? There is no pursuit so certain to be rewarded with all necessary riches, as his who depends upon the products of the earth. Do you wish health? It is more generally bestowed upon those who breathe the fresh air of the country, and peculiarly to those whose occupation is among the flocks and herds, and who stir the soil, and regale themselves with the odors of the meadow and the garden. Is the youth of feeble constitution? If the parent wishes to shorten his days, he can most likely insure his desire by placing him at the merchant's desk, or at one of the professions of law or medicine. His constitution, on the other hand, would most likely be invigorated by employment in rural pursuits. Does any one wish a pleasurable life? He cannot expect pleasure without employment. Idleness is the bane of happiness: to have nothing to do, and to be at a loss where to go, is a position near the top round of the ladder of misery. If the bleating of flocks, the lowing of herds, the prancing of colts, the humming of bees, the melody of birds, the beautiful scenery of the well cultivated farm, the glories of the garden, the enjoyment of plenty in its greatest delicacies, always at hand, fresh and pure, to gratify the most fastidious appetite, and a surplus with which to relieve the needy, the certain prospect of wealth, and the reflection that all this has been obtained by his own industry and good management, with a heart of gratitude to the disposer of blessings, can render a man happy, then is the skillful and industrious farmer among the happiest of mortals.

To be free from debt, not dependant on the success or failure of others to any great extent, is one great advantage which the farmer possesses over the merchant. He is not corroded with anxiety, nor made restless by the sleepless nights which disturb the repose of the merchant and the professional man. While he sleeps, his calves are growing, his swine are fattening, his crops advancing to perfection. His streams of plenty and wealth are flowing, while he enjoys the repose of the night, and he is awakened in the morning by the melodious carols of the robin and other songsters that rest in security on the trees and shrubbery which he has planted around his dwelling. He has his children around him, and he watches their development and education. They are aloof from the snares and contamination of the city. He lays in stores of useful and entertaining books by which they may be instructed and amused during long winter evenings, and at other times of leisure. He always does or should take a good newspaper, by which he and his children

are kept even with the times respecting transpiring events; and he will have in addition, one or more papers devoted to agriculture and horticulture, to enable him to be profited by the knowledge of others, and to direct all his energies and resources to the best known advantage. It was said by some wise man, that he who has caused two blades of grass to grow where but one could grow before, has done more good, and is a greater public benefactor, than the conqueror of armies.

One hundred per cent. advance in the productions of the earth, would sustain double the population, or in effect it would double the number of acres of land. On the poor soils of the country a greater improvement than this may be obtained. Why then is it not done? For the lack of knowledge and enterprise, experiments are sometimes disastrous, tending to individual losses: and one man, unaided by the experiments of others, might spend a long life and die in poverty, leaving posterity to reap the advantages of his few beneficial discoveries. But where hundreds and thousands are searching for valuable truths, and congregating together occasionally to enrich each other's minds with the results of all they have achieved and the means adopted to produce those results, there will be a rapid improvement in all, both in knowledge and wealth; all will be benefitted by the discoveries of each, and no individual be made less wise or less wealthy by his contributions to the general stock. A congregation of knowledge for the purpose of imparting it, so different from the distributions of money, that he who gives is a gainer; all possess the knowledge of each, all receive in the act of bestowing, all grow rich, and no one is impoverished by his contributions.

Agricultural associations excite emulation, and bring into active employment the minds of nearly all its members, and when many minds are at the same time searching for truths connected with any subject susceptible of improvement, the velocity with which discoveries will be made, will increase with the numbers employed in the research. Time will not now admit of reciting all the advantages and pleasures attendant upon agricultural meetings, and were there time, I would feel myself unequal to the task; I will mention a few and close.

The exhibitions of the plowing match, the rivalry in the prowess with the scythe, the sickle, and the cradle, will interest the athletic youths who toil in the strife; the aged can look on delighted with the scene, thankful that the times and the manners have so changed, that the youth may be amused in exercises tending only to advantage, that the fashions of savage ferocity accompanied with drinking and fighting, have given place to the gentle strifes of peace. Here too, will be exhibited a panorama of the best specimens of all the elegant, curious and useful animals in the district. Here the lovely maidens will present their boquets of flowers, specimens of their own handicraft in spinning, weaving and coloring, samples of butter and cheese, better and finer than eastern nabob ever feasted on. And last, though not least, those who reared and culled the flowers, who made the butter, who pressed the cheese, who spun the yarn, who colored the web, who wove the variegated pieces, who bleached the diaper, will be there in their own proper persons,

not by proxy; fashion will make their presence commendable. And there worthy youths will gather to behold the finest specimens of the last and best finished work of creation.

Here is a large and respectable assembly now ready to embark in this important work. We are late in commencing; our district of country has been long settled; our two counties are politically allied; we will strengthen the alliance by a friendly strife and competition, and that strife will be, to arrive at the highest attainable point in beautifying the earth, and rendering it still more and more subservient to human happiness.

PARKE COUNTY.

REPORT OF THE PARKE COUNTY AGRICULTURAL SOCIETY.

To the Indiana State Board of Agriculture:

In compliance with the provisions of the law, the Board of the Parke County Agricultural Society report:

That the society numbers about ninety members, a majority of whom take a great interest in the doings of the society, which seems prosperous, and bids fair to do much good in the county. This society was first organized in the year 1837, but there being so little interest manifested, soon went down, and was again re-organized in 1844; since that time it has kept up an organization, having its regular meetings, annual fairs, &c. During the present year, there have been many additions of members. The fair of the present year, exceeded any previous one, in the number in attendance, and in the enthusiasm manifested. There was a large amount of stock exhibited, also, many articles of domestic manufacture, including mechanical articles, fruits and other productions of the soil, a display of which our citizens

should ever feel proud. The ladies' department exhibited many articles of taste and value.

The officers of the society are—

Gen. G. K. Steele, President.
Hon. W. C. Danaldson, Vice President.
Jas. B. Cornelius, Secretary.

Directors.
- Lewis Miller, Esq.,
- Harvey N. Adams, Esq.,
- Walker Adams, Esq.,
- Peleg Redfield,
- David Elder, Esq.,
- H. H. Anderson,
- Solomon Allen,

1. Principal Crops.—Wheat, corn, oats, hay, rye, barley, buckwheat, fruits, to which may be added, horses, cattle, hogs and sheep.

2. Wheat.—Usual average product, twenty bushels per acre. Varieties, Mediterranean, Red-chaff. The crop this year is unusually good; will average from twenty to twenty-five bushels per acre, consequently we have a large surplus, we suppose one hundred and fifty thousand bushels. Price, forty-five cents per bushel, making an aggregate of $67,500.

3. Corn.—There was a large quantity of corn raised, a very small quantity of which was shipped, mostly being fed in the county. In consequence of the high freshets in the Wabash river, but little corn was raised in the bottom land. Average crop for our county is from fifty to seventy-five bushels per acre.

4. Oats.—A very good crop raised this season—mostly fed in the county. Price, sixteen cents per bushel.

5. Rye and Barley.—Not much of either raised in our county. Rye is principally raised for pasture. Barley raised for breweries, and sold at fifty cents per bushel.

6. Grass and Hay.—Timothy is considered the best for meadow; a large quantity is raised in the county, principally fed in the county. Our soil is peculiarly adapted to the raising of timothy. Average quantity raised per acre, two tons.

Clover, raised mostly for the purpose of feeding hogs, and enriching the soil. Blue grass, preferred for pasture and considered best for both summer and winter pasture.

7. Root Crop.—Potatoes—not an average crop this year, owing to the drowth in the latter part of the season. Potatoes were not much diseased with the rot. Sweet potatoes were raised in a large quantity this season, mostly consumed in the county; also considerable quantities of turnips.

8. Flax and Hemp.—Raised in small quantities.

9. Dairy Products.—A few of our farmers have turned their attention to making cheese, and although not extensively engaged in its manufacture find it a very profitable business. Considerable butter made, not much of which, however, is shipped.

10. Pork.—The greater portion of our farmers have turned their attention to raising hogs, thinking it the most profitable business in which they can engage. From the best estimate which we can make, seventeen thousand hogs were fatted in our county, and sold at Terre Haute, Montezuma and other points on the Wabash river, at an average of about $9 per head, making an aggregate of $153,000. There has not been that attention paid to the breeds of hogs by our farmers that there should have been.

11. Cattle.—Of the number of cattle, we have no reliable source of information, but think that no less than two thousand head have been bought and driven during the past year from our county to the east and other directions, at an average of $12 per head, making an aggregate of $24,000.

12. Horses and Mules.—Horses form a very important item in the product of our county, and although there has not been as much attention to procuring pure blooded horses to breed from, as in some other counties, nevertheless we produce a quality which readily sell at an average of from seventy to eighty dollars per head. Mules—a number of our farmers have turned their attention to the raising of mules, as they think it more profitable, than the raising of horses or

cattle; they come to maturity much sooner, and command the cash at any age. There have been several fine jacks brought into the county from Kentucky and other States, within the last two years, which has greatly improved the stock of mules. We think, that there has been sold and driven away the past year at least two hundred mules. Average, say $50 per head, making an aggregate of $10,000.

13. Sheep and Wool.—Our farmers have raised but little wool to ship until the last two years. It would be difficult to say, what number of sheep is now in the county, as the number varies more or less each year, for the reason that some years large quantities are bought up and driven off to market, and other years but few. Almost all of our farmers have more or less sheep. We think that the raising of sheep would be one of the most profitable operations, which our men who deal in stock could turn their attention to, as our soil is dry and healthy, as well as having an immense water power to manufacture the wool. We suppose we have twenty thousand sheep of different grades, producing say, one and a-half pounds of wool per head, 30,000 pounds, at thirty cents per pound, making an aggregate of $9,000, most of which is manufactured in the county.

14. Fruits.—We have a variety of fruits. Apples are our principal crop. Almost every farmer in the county has an orchard of the best grafted fruit. We have several extensive nurseries in the county, from which a large quantity of trees are yearly sent off. We have commenced shipping apples in a green state the last few years, and find it very profitable. Our crop was not large this season. A very few peaches this year.

15. Implements.—Our county has made but little progress in new improvements. We have no subsoil plows, and but few rollers in the county. Yet, we have a number of shops in the county, which manufacture plows that are said to be of a good quality—the kind principally used by our farmers. We are not aware that any particular experiments have

been made, but we can say, there is a decided improvement in the mode of culture—a more thorough breaking up and preparation of the soil, the application of manure to the same.

16. MINERALS.—We have inexhaustible beds of coal in various portions of the county, as yet they have been but little worked. We may soon expect a fine profit from the working of these beds. We have considerable iron ore in the county.

17. MILLS.—We have in the county fifteen good merchant flouring mills, and about forty saw mills, a part of which are propelled by steam. Also, two woolen manufacturing establishments, beside a number of carding machines, oil mills, &c. Our county is highly favored with water power—the Wabash river and Wabash and Erie canal on the west, Sugar creek on the north, Little and Big Raccoon on the east and south, with their numerous tributaries, giving us a very superior advantage in that respect over any other county in the State.

18. ROADS.—The Indianapolis and Springfield plank road goes through our county, which is already completed through the county, a distance of eighteen miles. This road is of great utility to our farmers in carrying off their surplus produce to the canal, and will yield a handsome profit to the stockholders.

REPORT OF PREMIUMS AWARDED AT THE PARKE COUNTY AGRICULTURAL SOCIETY.

To Harvey N. Adams, for the best cultivated farm of 320 acres, (see report) $4 00
To Wm. Wildman, for the best nursery of fruit trees, - - - 1 00
To John E. Adams, best acre of corn, supposed to be 118 bushels to the acre, (see report and manner of raising,) - - - 1 00
To Alfred Hadley, 106 bushels 3½ pecks corn to the acre, certificate granted.
To H. H. Anderson, 2d best com., 104 bush. to the acre, (see reports) certificate.
To W. C. Danaldson, for the best wheat, - - - - 1 00

To Perley Mitchell, for best ¼ acre Irish Potatoes, (see report of raising) 0 50
To Samuel Kelly, best apples, - - - Certificate granted.
To Peleg Redfield, 2d best apples, - - - - Certificate.
To Solomon Allen, good variety, - - - - Certificate.
To Joel Reynolds, best beets, - - - - - Certificate.
To W. C. Danaldson, best raddish, - - - - Certificate.
To Dr. Stryker, best quinces, - - - - - Certificate.

STOCK KIND.

Aquilla Justus, best stallion, - - - - - $5 00
Alfred Hadley, 2d best stallion, - - - - - 2 50
Lewis Miller, 1st best brood mare, - - - - - 3 00
Samuel McNutt, 2d best brood mare, - - - - 1 50
James M. Crooks, best sucking colt, very fine stock and beautiful animal, 1 00
David Elder 2d best sucking colt, - - - - - 50
Alfred Hadley, 1st best 3 year old stallion, - - - 1 00
John Ensworth, 1st best two year old stallion, - - - - 1 00
I. J. Silliman, 2d best two year old stallion, - - - 50
Samuel H. McNutt, best three year old mare, - - - Certificate.
C. P. Clark, best gelding, - - - - - Certificate.
H. Crooks, 2d best gelding, - - - - - Certificate.
Calvin Anderson, best yearling colt, - - - - 1 00
Lewis Miller, 2d best yearling colt, - - - - - 50
David Demaree, best jack and jennett, - - - - 7 00
P. E. Harris, 2d best jack, - - - - - - 2 50
H. N. Adams, 2d best jennett, - - - - - 1 00
H. N. Adams, 1st best one year old jennett, - - - - 1 00
David Demaree, best sucking jack colt, - - - - 1 00
N. H. Adams, 2d best sucking jack colt, - - - - 50
Wm. Ross, 2d best year old jack, - - - - - 50
H. N. Adams, 1st and 2d best sucking mules, - - - - 1 50

STOCK CATTLE.

A. Hadley, best 2 year old bull, (1st quality) - - - $3 00
A. Hadley, best cow, giving milk, do - - - - 2 00
A. Hadley, 2d best heifer, (1st quality,) - - - - 1 00
A. Hadley, best heifer, (common stock) - - - - - 1 00
R. Hill, 1 cow giving milk, 2d quality, - - - - 1 00
R. Hill, 1 calf, 2d quality, - - - - - - 50
R. Hill, 1 calf five months old, 2d quality, - - - - 50
Sol. Allen, best 3 year old bull, common stock, - - - - 3 00
Sol. Allen, heifer calf, 2d best, common stock, - - - 50
P. E. Harris, two year old heifer, 1st best, common stock, - - 50
Peleg Redfield, best milch cow, - - - - - 2 00
Peleg Redfield, best ram, (Saxony) - - - - - 2 00

P. Mitchell, 2d best ram, (Merino)	$1 00
Andrew Tinbrook, 1 boar, 1st choice,	2 00
Lewis Miller, 1 boar, 2d choice,	1 00
Solomon Allen, two pigs, 1st and 2d best,	50

PRODUCTS OF DAIRY.

Phebe Mitchell, 1st quality butter,	50
D. Demaree, 2d quality butter,	25
Samuel Kelly's wife, 1st quality cheese,	50
Phebe Mitchell, 2d quality cheese,	25
Sol. Allen, 1st quality honey,	Certificate.
P. Redfield, 2d quality honey,	Certificate.

MECHANICAL PRODUCTIONS.

James P. Ticknor, one two-horse covered car,	Certificate.
Same, one two-horse hack, fine specimen,	
J. S. Layman, rocking and lounge chairs,	Certificate.
Same, sitting chairs, a good article,	
David A. Maan, best upper leather,	(Premium,) 50
Same, best kipskins,	

DOMESTIC MANUFACTURES.

Mrs. Dr. Stryker, 1st best quilt,	25
Mrs. A. Justus, 1st and 2d best coverlet and jeans,	25
Mrs. W. C. Danaldson, 2d best quilt,	12½
Mrs. M. Reynolds, 1st best fulled cloth,	Certificate.
Mrs. A. Tinbrook, 2d best fulled cloth,	Certificate.
Mrs. H. N. Adams, 1st best five yards jeans, Kentucky mixed,	25
Mrs. John S. McMurtry, 2d best five yards jeans,	12½
Mrs. A. Tinbrook, 2d best five yards jeans,	Certificate.
Mrs. P. Mitchell, best five yards table linen,	Certificate.
Mrs. P. Mitchell, best mittens,	25
Mrs. J. Humphreys, piece rag carpet,	Certificate.

Below we present the mode of culture and the manner of making various articles presented. These reports have been very limited, and we respectfully request, hereafter, full explanations written out, of the manner of raising and producing.

CORN—104 BUSHELS PER ACRE.

Harrison H. Anderson prepared one acre of upland by breaking up the ground thoroughly in the spring. Sowed the corn broad cast on 25th of May, and harrowed it in. When about eight inches high, harrowed once so as to rake out and thin it. At gathering time it produced 104 bushels and 9 lbs., good solid corn. Cost of producing, $1 25 per acre. Corn worth in market 25 cents per bushel; which leaves a profit of $19 55.

CORN—119 BUSHELS PER ACRE.

Mr. John E. Adams on 1st of May broke up a field of 10 acres, and on the 12th planted corn by cross furrows three feet apart, (the usual way) plowed three times with two furrows and once with three furrows, and then hoed it clean. Season fair. On 16th October measured one rod square, an average of the field, and found ½ bushel, 1 gal. 3 qts. and 1 pint, or at the rate of 119 bushels per acre; at a cost per acre of $3, (supposed.) Worth 20 cents per bushel in market; leaves for profit $20 80.

Alfred Hadley raised, on upland, 106 bushels, 3½ pecks per acre. No statement of cost or manner of tillage given.

Perley Mitchell presented a fine specimen of seed corn, which he recommends to farmers.

Other members of the society reported verbally that they had fine yields of corn per acre, and would shortly furnish statements. None yet received.

POTATOES.

Perley Mitchell, ¼ acre Irish potatoes. The ground was in corn last year, clover sod without any manure; plowed and planted in potatoes the last of May. Rows 4 feet one way, and drilled in cross-wise 2 feet apart; four kinds were planted.

1st. Six rows of long Pinkeyes, 26 bushels.

2d. Five rows of long Reds, 29 bushels.

3d. Two rows of Orange, 9 bushels.

4th. Two rows of Cow Horn, 5 bushels.

Total ¼ of an acre, 69 bushels. At the rate of 276 bushels ℔ acre, which are worth 25 cents ℔ bushel in market; cost of seed and labor, supposed to be $6. Profit, $63 ℔ acre.

BUTTER.

Mrs. Phebe Mitchell presented 10 lbs. butter made from four cows in four days. The milk when taken from the cows, was placed over the fire and brought to a scalding heat, then set away for 36 hours. The cream then taken off and churned—the butter was then well worked, salted, and put away for 24 hours and worked again, then fit for use or market.

CHEESE.

Mrs. P. Mitchell presented a cheese, which was made from the milk of five cows. She says:

"I scalded my milk this season and kept it for four milkings; it was then all warmed and the runnet added, and let it stand about an hour; it was then wheyed off as dry as possible, cut in small pieces. Scalding whey was then poured over it until it appeared to shrink; salt was then added, then put to press, remained in press 24 hours. Laid on a dry shelf, and turned and greased every day."

W. C. DANALDSON, *President pro tem.*

J. B. CORNELIUS, *Secretary.*

PORTER COUNTY.

REPORT OF THE PORTER COUNTY AGRICULTURAL SOCIETY.

To the Indiana State Board of Agriculture:

The President and Secretary of the Porter County Agricultural Society, respectfully beg leave to offer and ask your acceptence of the following report:

Our society was organized June 14, 1851. For sometime after our organization there appeared but little enthusiasm on the subject, yet we determined on holding a fair and doing all in our power to excite an interest.

Our fair was held 29th of October, and although the day was most unfavorable, it "went off" in a manner much more creditable to our county than was anticipated by its most sanguine movers.

Our means being quite limited we thought proper to confine our awards entirely to stock, fruits, vegetable and dairy products. And it not only afforded us great satisfaction to

see a display so good; yet it gave considerable encouragement to those who intend becoming competitors another year.

As we offered no premiums on field crops we have no particular modes of tillage to describe.

Our society now numbers about seventy members with prospects as flattering we trust as those of most societies in our State—and with as great a field of usefulness open to us.

WM. A. BARNES, *President.*

WM. C. TALCOTT, *Secretary.*

THE FAIR AND THE PREMIUMS.

The committee appointed by the Board of Directors of the Porter County Agricultural Society, to determine what premiums, to the amount of $80 in all, shall be offered, and for what descriptions and qualities of animals and products, have agreed upon the following

LIST OF PREMIUMS

To be awarded at the Agricultural Fair at Valparaiso, on Wednesday the 29th of October next.

HORSES.

Best stallion,	$3 00
Second best stallion,	2 00
Best stud colt, three years old,	2 00
Second best stud colt, three years old,	1 00
Best stud colt two years old,	2 00
Second best stud colt two years old,	1 00
Best brood mare and colt,	3 00
Second best brood mare and colt,	2 00
Best span matched work horses,	2 00
Second best span matched work horses,	1 00
Best colt three years old,	2 00
Second best colt three years old,	1 00
Best colt two years old,	1 00

Second best colt two years old,	50
Best colt one year old,	1 00
Second best colt one year old,	50
Best sucking colt,	1 00
Second best sucking colt,	50

CATTLE.

Best bull over three years old,	$3 00
Second best bull over three years old,	2 00
Best bull under two years old,	2 00
Second best bull under two years old,	1 00
Best cow,	2 00
Second best cow,	1 00
Best yoke of oxen,	1 00
Second best yoke of oxen,	50
Best steer three years old,	1 00
Second best steer three years old,	50
Best steer two years old,	1 00
Second best steer two years old,	50
Best steer one year old,	1 00
Second best steer one year old,	50
Best heifer three years old,	1 00
Second best heifer three years old,	50
Best heifer two years old,	1 00
Second best heifer two years old,	50
Best heifer one year old,	1 00
Second best heifer one year old,	50
Best calf,	1 00
Second best calf,	50

SHEEP.

Best fine wool buck,	$2 00
Second best fine wool buck,	1 00
Best coarse wool buck,	1 00
Second best coarse wool buck,	50
Best lot of ewes not less than three,	2 00
Second best lot of ewes not less than three,	1 00

SWINE.

Best boar,	$3 00
Second best boar,	2 00
Best sow,	2 00
Second best sow,	1 00

FRUITS AND VEGETABLES.

To be distributed at the discretion of the awarding committee, - - 5 00

DAIRY PRODUCTS.

To be distributed at the discretion of the awarding committee, - $5 00

FARMING IMPLEMENTS.

To be distributed at the discretion of the awarding committee, - 5 00

W. A. BARNES,
W. C. TALCOTT, } Commissioners.
A. FREEMAN,

THE FAIR—OUR PROSPECTS—THE PREMIUMS.

Our agricultural fair on Wednesday last went off in better style than was anticipated by its most sanguine movers, although the rain fell continuously, from morning till night, there were as many persons present as we expected to see, had the day been most favorable, and the spirit, which characterised the proceedings, "speaks volumes" for the future. We may now consider our society on a firm foundation, with every prospect of being as good as any if not the *Banner* society of the State, therefore, let every resident, and particularly every farmer, become a member at once, and next year we will have a fair which will make us feel proud that we are citizens of Porter county. If we go to work with energy, we may have from two to four hundred dollars next fall to be awarded in premiums. Let us all be "*live*" members and contribute our mite to the encouragement of those who solicit from our common mother the nourishment which sustains us all, and may the 29th of October be an era in the agricultural history of our county, long cherished and remembered, as the dawning of brighter and better days. We should be glad to speak of some of the

stock and products exhibited in a more particular manner, but time and space forbid it.

Below we subjoin a list of premiums awarded which will be paid at the store of Saylor & Mason.

HORSES.

Best stallion, Ruel Starr,	$3 00
2d best, H. S. Adams,	2 00
Best stud colt three years old, H. G. Holister,	2 00
Best brood mare and colt, Isaac Miller,	3 00
Best span of matched work horses, Samuel Burns,	2 00
2d best, Hale Bates,	1 00
Best colt three years old, (Morgan stock,) T. A. E. Campbell,	1 00
2d best, T. A. E. Campbell,	1 00
Best colt two years old, Isaac Miller,	1 00
Best colt one year old, H. E. Woodruff,	1 00
2d best, H. E. Woodruff,	50
Best sucking colt, Isaac Miller,	1 00

CATTLE.

Best bull over three years old, T. Beach,	3 00
2d best, J. J. Caswell,	2 00
Best bull under three years old, S. Campbell,	2 00
Best cow, Wm. A. Handell,	2 00
2d best, G. Z. Salyer,	1 00
Best heifer two years old, D. Hughart,	1 00
Best calf, T. A. E. Campbell,	1 00

SHEEP.

Best fine wooled buck, Ruel Starr,	2 00
2d best, Ruel Starr,	1 00
Best lot of ewes not less than three, Ruel Starr,	2 00

SWINE.

Best boar, Austin B. White,	3 00
Best sow, Austin B. White,	2 00

FRUITS AND VEGETABLES.

Apples and quinces, H. E. Woodruff,	1 50
Apples and sweet potatoes, W. Barnard,	1 25
Apples, Ruel Starr,	1 25
Apples, D. Hughart,	1 00

DAIRY PRODUCTS.

Butter and cheese, T. Beach,	2 50
Butter, H. E. Woodruff,	2 50
Total,	$51 50

W. A. BARNES, *President.*

COMMUNICATION FROM MR. H. E. WOODRUFF.

DEAR SIR:—I here enclose the circular from the Indiana State Board of Agriculture, and in accordance with my promise, have the honor herewith to transmit a partial answer to some of the questions therein contained; feeling confident that you can answer more fully, I shall confine myself to a few, and leave them for you to correct.

WHEAT.

The best kind of wheat with us is the Mediterranean, and the best method of preparing the ground is to plow once, and that in the early part of August. Best time of seeding from 1st to 15th September; quantity of seed 1¼ @ 1½ bushels ℔ acre. Average yield per acre, 15 to 20 bushels. Time of harvesting, from 5th to 15th of July. Usual place of market, Michigan City; prevailing price during fall, 60 cents.

CORN.

My method of cultivating corn is so different from the usual mode that I will not attempt an answer.

OATS, RYE, AND BARLEY.

Oats—the quantity of seed used per acre is two bushels; rye, ¾ of a bushel. The average yield of oats is 30 bushels per acre; rye 15 bushels per acre. Barley, none raised.

GRASS.

Clover and timothy seeds mixed, make the best meadows, say two parts clover and one timothy. After mixing, put four quarts per acre; sow early in spring with oats, on wheat or rye crops. If sown on wheat or rye it should be harrowed in, and will be an advantage rather than disadvantage to the

crop. Such meadows will yield per annum 2½ tons per acre generally, at two cuttings; the first crop (in this county) should be cut the last part of June, and the second the last part of August. The cost of cutting and putting up an acre each crop, one dollar. Places of market, Valparaiso and in the country; prices ℔ ton, $5 to $6. It is believed that the best method to fertilize meadows (except the common way of manuring) is to plough deep, and at the same time turn under the last crop of clover and timothy; about the last of August sow wheat or rye, and re-seed in the following spring; and by pursuing this course lands may be fertilized to any extent.

DAIRY.

The average yearly produce of butter per cow is 90 to 100 lbs.; the comparative cost ℔ lb. of making butter and cheese, cannot answer. Milk is strained in pans, put in a room, the temperature of which should be some 50 to 55 degrees; after standing 48 hours it is skimmed, the cream is placed in jars or crocks, and left to stand 24 hours more to have it partially foment and mix. The most common mode of churning is the common dash hand churn. It is believed to be better than revolving churns for the reason that the butter gathers better. The best method known to us for putting down butter for market is to make it in rolls of three or four pounds, wrap each roll in thin light cloths, place the rolls snug in a barrel and cover with strong brine. The average price of butter the present season has been 12½ cents ℔ lb.

CATTLE, SHEEP, HOGS, HEMP and POTATOES, I will not attempt to answer.

FRUIT, AND FRUIT CULTURE.

The different varieties of fruits consist of apples pears, peaches, plums, grapes, apricots, quinces, cherries, currants, gooseberries and strawberries. The best method of cultivation for apples and pears known to us, (after set in orchard) is to mulch in the spring and remove it in the fall. The object of removing the mulch in the fall is to prevent the mice and other vermin from gnawing the bark, thereby killing young trees. There is so many methods practised with us in the cultivation of fruit trees, that I will not attempt a further answer. As to quantity, cannot answer. The best varieties of apples to keep for winter use are the following: Powell Spitzenburg, Newtown Pippin, Vandever Pippin, Roman Stem, Yellow Bellflower, Rhode Island Greening, Black Gille Fleur, Wine Sap, Cannon Pearmain, Peneeh, Northern Spy, Baldwin, Golden Russett, Blue Pearmain, Swaar, Ladies' Sweeting, Roxbury Russett, Bellmont, and the Rambo is an excellent winter apple, but not a good keeper. The usual price for good winter apples in winter, is one dollar per bushel. Our orchards are young, and as yet produce but little fruit.

The above is in such a bungling manner that I presume it will be of little or no use to you; but if you can glean anything to enable you to make report, I shall be well paid. I hope your health and business will not prevent.

I think it desirable that answers should be given to the circular, to the extent practicable. If your ill health or other circumstances prevent, I will suggest that you hand it over to Dr. Barnes.

Obediently yours,

H. E. WOODRUFF.

WM. C. TALCOTT, Esq., *Secretary of the Porter Co. Agricultural Society.*

In conformity with the requirement of the State Board of Agriculture of Indiana, the President and Secretary of the Porter County Agricultural Society, submit the following statement of the principal kinds of agricultural productions of the county, aggregate amount, average yield per acre, current price, and towns where sold, &c.

The principal productions are wheat, corn, oats, peas, beans, Irish and sweet potatoes, buckwheat, wool, fruit, garden produce, butter, cheese, hay, clover and grass seed.

The average amount of each—the late organization of our society, and its limited operations, afford us no means of estimating, except by reference to the census table of last year; wheat, 70,846 bushels; corn, 199,270; oats, 52,523; peas and beans, 599; Irish potatoes, 20,653; sweet potatoes, 100; buckwheat, 6,260; wool, 21,121 pounds; fruit, $3,422 worth; garden produce, $200 worth; butter, 62,901 pounds; cheese, 15,640; hay, 5,099 tons; clover and grass seed, 243 bushels.

The average yield is, wheat, about fifteen bushels to the acre; corn, thirty-five; oats, thirty; hay, one and a-half tons.

The current price is, wheat, fifty cents; corn, twenty-five; oats, twenty; beans, seventy-five; Irish potatoes, thirty-seven and a-half; sweet potatoes, one dollar; apples, seventy-five cents; butter, fifteen; cheese, seven; hay, five dollars per ton.

The principal market places are, Valparaiso, Michigan City and Hobart.

WM. A. BARNES, *President.*

WM. C. TALCOTT, *Secretary.*

ABSTRACT OF TREASURER'S REPORT.

To the officers and members of the
Porter County Agricultural Society:

In compliance with the constitution of said society, making it the duty of the Treasurer to exhibit to the Board of Directors, the state of finances of said society, the following statement is respectfully submitted:

I have opened an account with the following persons who have become members of our society, and who have paid or caused to be paid into the treasury one dollar each as members of said society—

(Here follow the names, 61 in number).....		$61 00
Paid Wm. C. Talcott for printing constitutions for said society as ordered by said Board of Directors.....	$5 00	
On account of Secretary and Treasurer's blank books.....	1 87	
There were awarded at county fair, premiums to the amount of.....	51 50	
		58 37
When all orders are presented and paid there will be a balance in the treasury of.....		$2 63

All of which is respectfully submitted:

AZARIAH FREEMAN, *Treasurer.*

PUTNAM COUNTY.

REPORT OF THE PUTNAM COUNTY AGRICULTURAL SOCIETY.

To the Indiana State Board of Agriculture:

First. This society was organized in accordance with law, May 9, 1851, and at this time numbers one hundred and five members.

Second. On the 8th, 9th and 10th days of October, 1851, the first annual fair was held at Greencastle, at which there was quite a large amount of stock shown, as well as many of the agricultural and mechanical productions of the county; and much interest was manifested by the members of the society, and the community at large, for its welfare and general prosperity. A printed list of the names of the successful competitors for premiums, together with the names of the articles on which premiums were awarded, is herewith submitted. I am reluctantly compelled however, to state, that owing to the neglect or oversight of the awarding committees, competitors did not in any instance, hand in a statement of the names or breed of their stock, and the manner or mode of tillage of their land. In consequence of this neglect, although much good was accomplished by our late fair, in creating a spirit of emulation in the improvement of stock, &c., yet it was not made of that practical utility of which it was susceptible, had this matter been properly attended to. I hope this neglect will not occur again.

Third. No money has been received from the county treasury to aid the society in funds, its only source for revenue having been by a direct tax upon the members. The Treasurer's report, which is hereto attached, exhibits the financial condition of the society.

Fourth. In giving a statement of the principal kinds of

agricultural productions of the county, &c., I feel some delicacy, as I have no *positive data* upon which to make a statement on this head; yet it is believed that the following (compiled from the most authentic source within my reach,) will prove nearly, if not quite, correct in every particular:

1. Stock.—Number of horses in the county, 6,760; mules, 1,404; cattle, 14,086; stock hogs, 37,788; hogs sold to merchants, (mostly at Terre Haute,) 39,130; average weight of merchantable hogs, 260 pounds; sheep on hand, 41,054; sheep disposed of to persons living out of the county the past season, 8,242.

2. Grain.—Number of acres of corn in the county, 39,702; average amount of corn per acre, forty-five bushels; acres of wheat, 25,132; average amount of wheat per acre, fifteen bushels; acres of oats, 4,290; average amount of oats per acre, thirty bushels; hay, number of tons, 7,956. Grain from this county is mostly sold at Indianapolis, Lafayette and Terre Haute. The Greencastle merchants, however, in view of the early completion of the Indianapolis and Terre Haute Railroad, have commenced taking in wheat.

3. Fruit.—While other portions of the State failed to produce apples in any considerable quantity, the past season, this county was almost as prolific in the production of this valuable fruit as usual. This county is admirably adapted to the production of fruits of all kinds, with the exception perhaps of the pear, which, from some unknown cause, is generally unproductive in our soil. The county produced a few peaches the past season. Great efforts are being made for the improvement of the quality of our fruit.

4. Land.—The number of acres of land in cultivation in this county is, 75,296; number of acres in pasture, 109,226.

5. Agricultural Implements.—Several valuable agricultural implements were presented for the inspection of the public at our late fair, among them a cultivator, owned by Stephen M. John, Esq., used in the cultivation of corn, and

a plow manufactured by ————, of Greencastle, on an entirely new and improved principle.

Fifth. The officers of the society are as follows:

WILLIAM D. ALLEN, President.
R. N. ALLEN, Vice President.
C. W. BROWN, Secretary.
A. C. STEVENSON, Corresponding Secretary.
JOSEPH F. FARLEY, Treasurer.

Executive Committee.
T. R. FRAKES,
JAMES ALLEN,
ANDREW JOHNSTON,
ELIJAH MCCARTY,
WM. G. DUCKWORTH,
RICHARD HAZELETT,
T. DARNALL,
ARCH. JOHNSTON,
THOMAS TALBOTT,
GEORGE ROBINSON,

All of which is respectfully submitted:

C. W. BROWN, *Secretary.*

To the Indiana State Board of Agriculture:

The undersigned, Treasurer of the Putnam County Agricultural Society, respectfully submits the following report of the receipts and expenditures of said society, viz:

Amount received in treasury up to January 1, 1852	$126 00
Amount paid in premiums	105 30
Balance in the treasury	$20 70

J. F. FARLEY, *Treasurer.*

RUSH COUNTY.

REPORT OF THE RUSH COUNTY AGRICULTURAL SOCIETY.

To the Indiana State Board of Agriculture:

Yet in its infancy, as our society is, we are not able of course, to make a report that will furnish much information as to the agricultural resources of Rush county, or their development.

Considering that we had not been able to do anything practical, except to organize the society, I have confined the matter of my report to the manner of that organization.

The Rush County Agricultural Society was organized on the 8th day of November, 1851, by the election of

JESSE MORGAN, President;
JETHRO S. FOLGER, Vice President;
GEO. W. HARGITT, Secretary;
JOSEPH NICHOLAS, Treasurer.

Our society having adjourned without electing directors on the 8th, met again on Saturday, the 22d of November, and elected the following persons as directors to serve for one year:

Director for Centre township—S. S. McBride.
Director for Rushville township—Jas. McConnell.
Director for Walker township—Geo. Thomas.
Director for Union township—Garrett Wycoff.
Director for Posey township—Robert Ford.
Director for Noble township—Peter Scooney.
Director for Richland township—Jas. R. Patten.
Director for Anderson township—Jas. Buchanan.
Director for Orange township—Jno. Webb.
Director for Washington township—Wm. S. Hall.
Director for Jackson township—S. S. Offutt.
Director for Ripley township—Jno. Clarke.

Our society now numbers one hundred and fifty members, and new ones are coming in daily. At no former period in the history of Rush county, have our farmers been so deeply aroused to the importance of sustaing in their midst, a society of this character. They are disposed to lend it their countenance and aid; and, in a county like this, possessed of a deep, rich soil, and filled with intelligent and able farmers, their efforts cannot fail to be of great service in advancing the agricultural interests of the State.

I would state to the Board, in compliance with what I regard as the wish of this society, that some change should be made in the present law, that would enable us to encourage horticultural pursuits, without the organization of a seprate society.

This is prevented at present, by a regulation of your Board, which prohibits premiums from being allowed upon root crops for less than one-fourth of an acre. It being very difficult, in most counties, to sustain properly two societies having in view so nearly the same object, the abolition of the rule spoken of, or the portion of the law requiring it, is in my opinion imperatively demanded.

Not being prepared to furnish any reliable statistics of interest to the Board, I respectfully submit the above report, meagre as it is.

By order of the society:

GEO. W. HARGITT,

Secretary of the Rush Co. Ag. Society.

ST. JOSEPH COUNTY.

REPORT OF THE ST. JOSEPH COUNTY AGRICULTURAL SOCIETY.

John B. Dillon, Esq.:

DEAR SIR:—To-day (Dec. 8th,) I received the circular sent out by the State Board of Agriculture, and as the time has already passed, when the reports were desired from county societies, I hasten to forward such information as is in my possession at this time.

The St. Joseph County Agricultural Society was organized on the 19th day of April, 1851, and its officers are,

HON. POWERS GREEN, President.
HON. JOHN J. DEMING, Vice President.
WILLIAM MILLER, Esq., Treasurer.
JOHN M. VEASEY, Secretary.

Directors.

Olive township—S. A. Whitlock.
Warren township—Reynolds Dunn.
German township—Samuel Witter.
Green township—M. B. Hammond.
Portage township—Elmer Rose.
Penn township—G. C. Merrifield.
Centre township—Alexis Foot.
Clay township—Thos. P. Bulla.
Union township—Edwin Pickett.

At a meeting of the society, held the 6th day of September, it was decided that their first annual fair should be held in South Bend, on Saturday, the 16th of October, and that the following list of premiums be given:

FARMS.

Best cultivated farm,	$5 00
Second best cultivated farm,	3 00

HORSES.

Best stallion for draft,	3 00
Second best stallion for draft,	1 00
Best stallion for carriage,	3 00
Second best stallion for carriage,	1 00
Best brood mare for draft,	2 00
Second best brood mare for draft,	Indiana Farmer.
Best brood mare for carriage,	2 00
Second best brood mare for carriage,	Michigan Farmer.
Best pair matched horses,	2 00
Second best pair matched horses,	1 00
Best single horse in harness,	1 00
Best colt three years old,	2 00
Second best colt three years old,	Michigan Farmer.
Best colt two years old,	1 00
Second best colt two years old,	Ills. Prairie Farmer.
Best colt one year old,	1 00
Best spring colt,	1 00

CATTLE.

Best bull,	3 00
Second best bull,	1 00
Best two year old bull,	2 00
Second best two year old bull,	Prairie Farmer.
Best yearling,	1 00
Best calf,	Prairie Farmer.
Best cow for dairy,	1 00
Best cow for fattening,	1 00
Best two year old heifer,	1 00
Best yearling heifer,	1 00
Best heifer calf,	Prairie Farmer.
Best yoke working oxen,	2 00
Second best yoke working oxen,	1 00
Two best steers,	1 50
Best fat ox or steer,	1 00
Second best fat ox or steer,	Michigan Farmer.
Best fat cow,	Michigan Farmer.

SHEEP.

Best fine wooled buck,	2 00
Best fine wooled ewe,	1 00
Best pen of sheep, (not less than ten)	1 00

SWINE.

Best boar,	2 00
Second best boar,	1 00
Best sow,	1 00
Second best sow,	Michigan Farmer.
Best three pigs,	Genesee Farmer.

FOWLS.

Best pair fowls,	1 00
Second best pair fowls,	Michigan Farmer.
Best pair turkeys,	1 00
Best pair geese,	Michigan Farmer.

CROPS.

Best acre of wheat,	2 00
Best acre of corn,	3 00
Best acre of oats,	1 00
Best ½ acre of potatoes,	1 00
Best ¼ acre of buckwheat,	Prairie Farmer.
Best ¼ acre of flax,	1 00
Best acre of grass,	1 00
Best braid of seed corn, (not less than 40 ears)	Prairie Farmer.

FARMING UTENSILS.

Best plow for general purposes,	1 00
Best cultivator,	1 00
Best harrow,	1 00
Best farm wagon,	1 00
Best threshing machine,	2 00
Best straw cutter,	1 00
Best bee hive,	Michigan Farmer.
Best churn,	Prairie Farmer.
Best wagon harness,	1 50
Best carriage harness, double,	1 00
Best carriage harness, single,	1 00
Best buggy,	1 00
Best cheese press,	Indiana Farmer.
Best fanning mill,	1 00

MANUFACTURED ARTICLES.

Best and most flour from five bushels of wheat,	1 00
Best set of horse shoes,	Genessee Farmer.
Best chopping axe,	Prairie Farmer.
Best cooking stove manufactured in this county,	Genessee Farmer.
Best set of stove furniture,	1 00
Best bureau,	1 00
Best book case,	1 00
Best breakfast or dining table,	Prairie Farmer.
Best fur hat,	Genessee Farmer.
Best straw hat,	50
Best pair coarse boots,	1 00
Best pair fine boots,	1 00
Best womens' coarse shoes,	Indiana Farmer.
Best womens' fine shoes,	Genessee Farmer.
Best assortment of leather, six pieces,	1 00
Best pork barrel,	Michigan Farmer.
Best assortment of earthenware,	Indiana Farmer.
Best specimen of ornamental painting,	1 00
Best assortment of edge tools,	1 00
Best made set of chairs,	1 00
Best made rocking chair,	1 00
Best corn basket,	50

FANCY AND DOMESTIC ARTICLES.

Best wool carpet,	1 00
Best rag carpet,	1 00
Best piece linen bagging,	1 00
Best piece fulled cloth, five yards,	1 00
Best piece flannel, five yards,	1 00
Best pair of woolen socks,	50
Best pair of woolen mittens,	50
Best bed quilt,	1 00
Best counterpane,	1 00
Best specimen linen sewing thread,	50
Best specimen ornamental needle work,	1 00
Best made coat,	1 50
Best made vest,	50
Best made pants,	50

VEGETABLES.

Twelve best turnips,	Genessee Farmer.
Six best heads cabbage,	Prairie Farmer.

Six best blood beets,	Michigan Farmer.
Twelve best onions,	Indiana Farmer.
Fifteen best carrots,	50
Largest squash,	50
Largest pumpkin,	Prairie Farmer.
Largest and best variety of Irish potatoes,	Indiana Farmer.
Best bushel sweet potatoes,	Michigan Farmer.

FRUITS.

Best six kinds winter fruits,	Indiana Farmer.
Best general selection of apples, ½ bushel,	1 00
Best peck of pears,	Indiana Farmer.
Best 12 quinces,	Prairie Farmer.

PRODUCTS OF DAIRY, &c.

[Of which the Board of Trustees are judges.]

Best 3 lbs. of butter,	1 00
Best 10 lbs. of cheese,	1 00
Best five lbs. of honey,	Indiana Farmer.
Best five lbs. maple sugar,	Genessee Farmer.
Best two loaves of bread,	50
Best loaf of sponge cake,	50
Best fruit cake,	50
Best plain cake,	50
Best clusters grapes,	Mich. Farmer.
Best boquet of flowers,	50
Best variety of flowers, in pots,	50

It is earnestly recommended by the society that a description of the number and quality of all articles intended for exhibition shall be reported to the secretary at least one week prior to the day of exhibition.

The following resolutions were adopted:

That all reports of viewing committees shall be made in writing and deposited with the secretary.

That John H. Harper be appointed Marshal.

No premiums will be given on articles manufactured out of the county, or on stock unless owned by citizens of the county.

POWERS GREEN, *President.*

JOHN M. VEAREY, *Secretary.*

As to the questions proposed for answers, I can only say that so far as my knowledge of the opinions of the members of the society are concerned, that,

1. Wheat.—The best kind is conceded to be the Blue Stem. Our method of preparing the soil, is by simple plowing; sub-soiling has not yet been tested. To roll the seed in slacked lime is considered advantageous. Time of seeding, about the first of September. Quantity of seed per acre, from one and a-fourth to one and a-half bushels per acre. Average yield, I am unable to state. Time of harvesting, from first to tenth of July. A small portion is put in barns—a portion stacked in the field, and a very large portion thrashed in the field by "Briggs' Traveling Machine." The usual place of market is at South Bend. Remedies for Hessian fly and wevil, is to sow at the right time in the season, having reference to the weather that precedes and follows seeding, when we have foresight enough to discover what the weather is going to be.

Place of market for corn is South Bend, and the prevailing price this season, twenty cents.

2. Sheep.—Large sheep that shear heavy fleeces, and medium quality for fineness, are the most profitable. Wool growing is profitable beyond doubt.

3. Hogs.—The best breeds are a cross of the Leicestershire and some of the smaller boned varieties. Price of pork the present season, $3 50 to $4.

4. Fruit.—The best varieties for winter use, are the Vandever pippin, Rhode Island Greening, Esopus Spitzenburg, Swaar, Tallman's Sweeting, Twenty-ounce, Baldwin, Northern Spy, Newtown Pippin, Seek-no-further. Price this season, eighty-seven and a-half cents.

The Secretary of this society deeply regrets that he has not been able to prepare a statistical table of the products of the county for the past year, and also, to give to the State Board such other information as is required by the resolution concerning reports from county or district societies.

But the Board will recollect that this society is in its infancy, and held its first fair this fall, and that it cannot be expected to have all the facts which are desirable within its reach; but the encouragement given at the fair in October, gives the society great reason to hope that it will be liberally supported by the community. You will observe that our list of members is large. Our exhibition was highly creditable; that of fruit, we were assured equalled, if it did not surpass, the exhibition at the State Fair in New Lork the past season, (we do not mean as to extent of varieties,) but for beautiful specimens; in this respect, Indiana may safely challenge competition with any of the old fruit growing States. The prospect of the society for future usefulness, is of the most flattering character, and another year we feel safe in saying, that our statistics will be ready in season for the State Board, and that we shall be able to report progress in the general business of the society.

POWERS GREEN, *President.*

JOHN M. VRASEY, *Secretary.*

SHELBY COUNTY.

REPORT OF THE SHELBY COUNTY AGRICULTURAL SOCIETY.

To the Indiana State Board of Agriculture:

The Shelby County Agricultural Society was organized at the court house, in Shelbyville, on the first day of November,

1851, by the adoption of the accompanying constitution, and the election of the following officers, viz:

David Whitcomb, President;
Nathan Lewis, Vice President;
D. Thacher, Secretary;
Jacob Vernon, Treasurer;
E. G. Mayhew, Librarian.

The following persons were elected Directors for the ensuing year, viz:

James Elliott, of Addison township.
E. S. Dunlap, of Washington township.
Samuel Hahn, of Liberty township.
Edward Gird, of Brandywine township.
Stephen Collins, of Sugar Creek township.
Wm. C. Picket, of Moral township.
Jno. Neibel, sen., of Jackson township.
Wm. Cotton of Union township.
Henry J. Gaines, of Marion township.
Randolph Rutherford, of Hanover township.
Jno. M. Dodd, of Hendricks township.
Nicholas Kern, of Van Buren township.
Wm. Moore, of Noble township.

The society consists of sixty-seven members, and has adopted the accompanying code of by-laws, for its government.

At the last meeting of the society, December 27, 1851, eighteen dollars and sixteen cents was appropriated for subscription to the following periodicals for the ensuing year, viz: "The Indiana Farmer," "The Cultivator," "The Plow" and "The Horticulturist" of New York, "The Prairie Farmer" of Illinois, "The Dollar Farmer" of Ky., "The Plow, the Loom, and the Anvil" and "The Pennsylvania Farm Journal" of Pa., "The Ohio Agriculturist" "The Western Horticultural Review" of Ohio, "The Journal of Agriculture" of Massachusetts, and "The American Farmer" of Maryland.

The further sum of thirty-three and a-half dollars was also appropriated for the purchase of the following works on agriculture and kindred subjects, viz: The Farmer's Companion; The Farmer's Instructor; The Practical Farmer; Treatise on Agriculture; Farmer's Dictionary; Morrell's American Shepherd; Allen's Farm Book; Johnston's Agricultural Chemistry; Norton's Agricultural Chemistry; The Principles of Science applied to the Domestic and Mechanic Arts, Manufactures and Agriculture; American Husbandry; Encyclopedia of Domestic Economy; Youatt on Cattle; Youatt on the Horse; Downing's Country Houses; Thomas' Fruit Culturist; Turner's Encyclopedia of Agriculture; Coleman's European Agriculture; Stephens' Farmer's Guide; and Bennett's Poulterer's Companion.

A member of the Society donated to the Library, "Downing's Fruit Book," and another member proposed to donate the first nine volumes of "The Cultivator," well bound, and "Kenrick's New American Orchardist," provided the members of the society present, would contribute the sum of ten dollars for the purchase of the remaining nine volumes bound, of "The Cultivator," so as to secure the whole of that valuable periodical from its commencement to the beginning of the current year. The ten dollars was promptly raised, and the society will consequently have a Library of about twenty-five different works, besides the eighteen bound volumes of "The Cultivator," which is perhaps the best agricultural journal ever published, and one dozen monthly and semi-monthly agricultural journals to commence with. It is confidently believed that a wiser expenditure of a like sum of money could not be made, and a rich yield may be expected in coming years, from the perusal of these choice works on this important subject.

The proprietor of the "Volunteer," newspaper published in this place, offered to the society two columns per week of his paper, to be filled with agricultural matter by a committee of the society. A committee has been appointed to attend

to it, and good results may be looked for, if a wise use is made of the offer.

The late period of the year at which this society was organized, precludes our offering to the State Board of Agriculture, any exact statistical report for the county. Taking the census returns of 1850, which give the statistics for 1849, and making a reasonable estimate of the increase on the yield of that year, and we have the following approximate statistics for 1851, as the product of Shelby county, viz: four hundred and fifty thousand bushels of wheat, worth at fifty cents per bushels, two hundred and twenty-five thousand dollars. Of Indian corn, one and a-half million of bushels, worth at twenty cents per bushel, three hundred thousand dollars. Of oats, seventy thousand bushels, worth at fifteen cents per bushel, ten thousand and five hundred dollars. Of Irish potatoes, eighty thousand bushels, worth at twenty-five cents per bushel, twenty thousand dollars. Of wool, fifty thousand pounds, worth at thirty cents per pound, fifteen thousand dollars. Twenty thousand pounds of tobacco. Of fatted pork, forty thousand head, averaging two hundred pounds weight, worth at four dollars and twenty-five cents per one hundred pounds, three hundred thousand dollars. There are also small crops of numerous productions not estimated, but worth in the aggregate no inconsiderable sum. These estimates are believed by those most competent to judge, to be under, rather than over the truth.

Nearly three-fifths of the land in Shelby county is yet unimproved, although much of it is the best land in the county, the value of which has been hitherto underrated, on account of its being more or less wet, in its natural state. It is however, susceptible of easy and perfect drainage, either by clearing or by ditching; though little effort has yet been made towards showing the utility of ditching.

Until recently, Shelby county was without easy access to any market, and the cost of conveying heavy crops to Madison, seventy-five miles, or to Cincinnati, eighy-five miles, in

wagons, over the natural roads of the country, was so heavy a tax, as to almost amount to a prohibition of their production, beyond the necessity for home consumption. The existing railroad to Madison, and the Jeffersonville and Columbus road, which will be finished during the present year, and the Lawrenceburg road, which will probably be completed in season for the crop of 1853, afford ready and cheap access to either the northern or southern market for our productions, and thereby remove one of the principal hindrances to the development of the agricultural capacity of the county. The greatest remaining hindrance to the attainment of this desirable object, is the want of intelligence and system in the conduct of farming operations, and this is mainly the result of a degraded view of their occupation by the farmers generally. This impediment, it is to be hoped, the agricultural society, aided by the State Board of Agriculture, will speedily remove, and then, and we trust at no distant day, Shelby county will take her stand by the side of any agricultural county of equal size in the State.

In the absence of accurate statistics, and without sufficient time to collect them, we dare not now attempt more specific answers to the questions contained in the circular of the State Board; but hope to be able to meet them fairly by another season. We would suggest to the State Board, whether the assessors of the several counties might not, by suitable amendments to the present laws, annually collect agricultural and manufacturing statistics of great value to the whole State. Or, if *the time* of assessing is not suitable, might not a set of county or township officers be created by law, for the express purpose of collecting such statistics at the proper season, say in September or October of each year. The advantage which would accrue from this course, would be so great in pointing out at an early day after the growing crops are perfected, positively and accurately, the sections of the State in which any article or class of production is excessive or deficient, thereby indicating the points of demand

and supply; that other States would soon follow in doing the same thing, and as a consequence, market prices would be steadier, and trading on speculation would be safer, because governed by fixed data, and not by loose estimates often made by parties interested in exaggerating or depreciating facts, as at present.

Shelby county is well stocked with the common fruits of very good quality, and there is usually a large surplus, but the crop of 1851 entirely failed here, as elsewhere.

Proper attention to sheep husbandry, to wool culture and feeding; and to the raising of the castor oil bean, for all of which, it is admirably adapted, would add many thousands to the value of the agricultural productions of Shelby county.

But a new era it is to be hoped is now dawning on our county and State—an era of agricultural and manufacturing improvement, for these interests must go hand in hand—an era in which we trust that the universal, and controlling, and turbulent interests in party politics, will be superseded by the general prevalence in the public mind of the more peaceful, productive, and happyfying influence of agricultural and manufacturing interests.

All of which is respectfully submitted:

DAVID WHITCOMB, *President.*

D. THACHER, *Secretary.*

CONSTITUTION OF THE SHELBY CO. AGRICULTURAL SOCIETY.

WHEREAS, Agriculture, in a comprehensive sense of the term, if conducted in the most improved and scientific manner, is not only the most necessary, useful and profitable occupation of man, but pre-eminently honorable; being that which gives life, vigor, and prosperity to every department of business. And

WHEREAS, the real and substantial wealth and glory of a people are increased in proportion as its agricultural and manufacturing interests are developed

and made prosperous: Therefore, in order to encourage improvements in agriculture and the manufacturing arts, and raise them to their proper point of prosperity in Shelby county, we do hereby form ourselves into an association to be known as the "Shelby County Agricultural Society;" and for the purpose of carrying out the above views, do ordain and adopt the following constitution for its government:

SECTION 1. This association shall be known by the name and style of "The Shelby County Agricultural Society." And its object shall be to promote agriculture, horticulture, stock raising, manufacturing, household and mechanic arts in the county of Shelby.

SEC. 2. The officers of this society shall consist of a President, Vice President, Treasurer, Secretary, Librarian, and one director from each civil township in the county, who, together, shall constitute a Board of Directors for the general management of the affairs of the society; all of whom shall be elected by the members of the society, at the annual meetings thereof, which shall be held on the first Saturday of September in each year, and shall hold their respective offices until their successors are duly appointed. *Provided*, That the first election of officers shall take place shortly after the adoption of this constitution; and the officers then chosen shall hold their respective places until the first annual meeting thereafter.

SEC. 3. It shall be the duty of the President to preside at all meetings of the society and board of directors, and through the secretary to call special meetings of the society or board of directors, when in his judgment the interests of the society demand it, or when he is requested in writing to do so by five members of the society.

SEC. 4. The Vice President shall preside at the meetings of the society and board of directors in the absence, death, resignation, &c., of the President, and generally perform his duties in case of his inability.

SEC. 5. The Secretary shall perform the usual duties of such officer; keep a fair record of the proceedings of the society and board of directors; give notice of called meetings at the direction of the President, or Vice President—as herein provided for—and due notice of all public exhibitions.

SEC. 6. The Treasurer shall receive and disburse all moneys. No money shall be paid out of the treasury excepting by order of the board of directors, or of the society, certified by the secretary. He shall give bond for the faithful discharge of the duties of his office, in such penalty and under such restrictions as the society or board of directors may require, and shall make a report at each annual meeting of the society of his affairs as Treasurer.

SEC. 7. The Librarian shall have charge of any books, pamphlets or periodicals which may be donated to, or purchased by the society, in accordance with the by-laws of the society.

SEC. 8. The Board of Directors shall have the general management of the affairs of the society, in accordance with this constitution, and the by-laws which may be adopted by the society or board of directors from time to time, seven of whom shall constitute a quorum for the transaction of business.

SEC. 9. The Board of Directors shall annually appoint committees, con-

sisting of three persons each, to examine the different classes of articles offered in competition, and to award the premiums offered by the society for the same, keeping in view the directions of the Indiana State Board of Agriculture on this subject.

SEC. 10. Any person residing in Shelby county may become a member of this society by signing the constitution and paying into the treasury the sum of one dollar annually, at or before the annual meeting, and may withdraw from this society by giving notice thereof to the secretary, and paying all moneys due from him to the society.

SEC. 11. The Board of Directors shall have power to fill all vacancies that may occur in any of the offices of this society.

SEC. 12. Competitors for premiums must be members of the society.

SEC. 13. The society shall hold regular meetings at such times and places as may be prescribed by the by-laws adopted by the society, (say monthly from September to April, inclusive.)

SEC. 14. The annual fair or exhibition shall be held at such time before the first day of November, and at such place as shall be selected at the annual meeting on the first Saturday of September of each year, at least one month's notice thereof being given, as to time, place and premiums.

SEC. 15. This constitution may be amended at any regular meeting of the society, by two-thirds of the members present, provided said amendments are proposed in writing at the last regular meeting preceding the one at which it may be adopted, and are consistent with the requirements of the State Board of Agriculture, and not repugnant thereto.

President, DAVID WESTCOMB; Vice President, NATHAN LEWIS; Secretary, DAVID THACHER; Treasurer, JACOB VERNON; Librarian, E. G. MAYHEW.

BY-LAWS OF THE SHELBY COUNTY AGRICULTURAL SOCIETY.

1st. This society shall hold its regular meetings on the first Saturday of September, October, November, December, January, February, March and April of each year, at the court house in Shelbyville, at the hour of 10 o'clock A. M.

2d. The Board of Directors for said society shall hold their meetings at Shelbyville, at the call of the President.

3d. It shall be the duty of the Board of Directors of this society to make out and publish a list of premiums to be awarded at the annual fairs of this society; and to make out and publish the same on or before the first Saturday of April of each year preceding the annual fair for said year.

4th. For non-attendance of any member of this society at any of its regular meetings, such member shall forfeit and pay to the treasurer of this society

the sum of 25 cents; and for each non-attendance of any member of the Board of Directors at any regular meeting of said Board, such member shall forfeit and pay to the treasurer of the society the sum of 25 cents: *Provided, however*, That the society in the former case, and the board in the latter, may excuse such absentees from such forfeiture, for good reasons shown.

5th. It shall be the duty of the Librarian of this society to subscribe for all such books and periodicals for the use of said society as are ordered by the society, and for which money in the hands of the treasurer not otherwise appropriated, shall be appropriated by this society at their monthly meetings in December.

The said Librarian shall keep said books and periodicals for the use of, and for circulation among the members of this society, and none others. He shall keep a register of the receipt and returns of all such books and periodicals, which are hereby made returnable every four weeks.

No member shall be allowed to take from the library or retain during the same time more than one book, and one number of a periodical. And any member losing, destroying, or injuring any such book or periodical, shall pay the fair damage to the librarian for the use of the society.

Any member who shall fail to return any book or periodical on or before the return day, shall forfeit and pay to the librarian the sum of ten cents, for the use of the society; all which forfeitures and damages so collected by the librarian shall be paid over to the treasurer, and his receipt taken for the same, and by said librarian filed and kept in his office. *Provided further*, That the society may, for good cause, remit a forfeiture for not returning a book or periodical at the proper time.

It shall also be the duty of said librarian to report fully once every year the whole of his official transactions to the society.

6th. It shall be the duty of the Treasurer of this society to safely keep the moneys coming into his hands, and disburse the same on the order or warrant drawn on him by the Secretary, signed by the President and countersigned by said Secretary; and annually make full report of the financial condition of the society.

7th. Neither the President and Secretary, nor either of them, shall draw such warrant on the Treasurer for moneys unless the society shall have previously ordered such warrant, and made the specified appropriation of money.

STEUBEN COUNTY.

REPORT OF THE STEUBEN COUNTY AGRICULTURAL SOCIETY.

To the Honorable, the Indiana State Board of Agriculture:

The undersigned respectfully submits the following answers to some of your inquiries propounded in your circular for 1851:

WHEAT.—The varieties most esteemed in this county are the Flint, the Sales and Red-chaff bald, the two latter varieties yield the best when the seasons are favorable. Summer fallowing for wheat by twice plowing is the usual mode of preparing the ground. Time of sowing is from the 1st to 15th of September. Time of harvesting, from 1st to the 15th of July. Most of our wheat is sold in Coldwater and Hillsdale, Michigan, and in Defiance, Ohio. The price the past season has averaged about fifty cents.

2. CORN.—Is cultivated to some extent. The usual time of planting is from the 8th to the 15th of May. The usual mode of preparing the ground is, once plowing in the spring, harrowing and marking out the ground in furrows. The yellow dent is most raised. The average yield, thirty-five bushels per acre.

3. OATS.—Are raised to some extent, but principally for home consumption. The ground is usually prepared similar to that for corn; two bushels are usually sowed per acre, and the average yield is about the same. Average price the past season, twenty cents per bushel. Rye and barley are not raised to any considerable extent.

4. GRASS.—Grasses are not raised to any considerable extent. The varieties in use are timothy and red-top; they do the best on timbered land; clover is raised on the opening land for hay, and is used as a fertiliser. Hay is worth five dollars per ton.

5. Cattle.—Are raised to some extent for market; but the common are the prevailing breeds as yet. Our farmers are, many of them, waking up to the importance of improving their breeds of cattle, and have introduced some fine specimens of the Devon and Durham breeds. The average price of cattle at three years old of the common breeds is $12.

6. Sheep.—The rearing of sheep is beginning to attract the attention of many of our farmers, and they are introducing the Leicestershires, the Spanish and Merinos, and Saxony breeds. The large common sheep of the country and the Leicestershires are esteemed the best for mutton, and the Saxony and Merinos the most valuable for wool. Our distance from market, the uncertainty of the wheat crop, the cheapness of land, and the fact that sheep and cattle are almost exempt from disease, render it probable that the rearing of stock must soon be the great avocation of our agriculturists.

7. Soil and Timber.—We have almost every variety of soil. Our prairies are a dark sand, and loam on the surface, while from two to three feet below is found a coarse lightish colored gravel. The Bur oak land (as it is called from the timber,) is a dark colored gravel; our common openings are clay, yellow sand and a chocolate colored earth, sometimes a dark colored loam.

Most of the timbered lands are clayey, except from six to eighteen inches of the surface, which is a rich vegetable mould.

Every variety of timber common to the rich soils of the west are found here. Such as several varieties of the ash, oak, maple, poplar, buckeye, walnut, &c., &c. Perhaps as much of our county is covered with marshes or natural meadows as any other in the north-eastern portion of the State, producing marsh hay in large quanties, which answers a good purpose for wintering cattle, and does well for horses and sheep, if a small quantity of grain is fed. Most of the

marshes are capable of being drained of the surface water, and in that condition are found to produce red-top grass of a good quality, and in large quantities; in their native state they produce the earliest feed for stock in the spring, owing to the warmth kept up by the springs which are usually found scattered over them.

Below will be found the names of the officers of the Steuben County Agricultural Society, organized July 4, 1851. No agricultural fair has yet been held. Arrangements are made for holding a fair in the fall of 1852.

Yours, &c.,

A. W. HENDRY.

Officers of the Steuben Co. Agricultural Society.

Alanson W. Hendry, President.
John Green, Vice President.
Leland H. Stocker, Secretary.
Abner Winsor, Treasurer.

Board of Directors.

Millgrove township—Orlando Wilder.
Jamestown township—George A. Milnes.
Fremont township—Samuel A. Stewart.
Clear Lake township—Stephen A. Powers.
Scott township—Geo. W. Wickwire.
Pleasant township—Geo. W. Balding.
Jackson township—Philo Clark.
Salem township—John Loughery.
Steuben township—Israel D. Morley.
Otsego township—James Clark.
Richland township—Horatio E. Gordon.

Delegate to the meeting of the State Board of Agriculture—Dr. G. W. McConnell.

TIPPECANOE COUNTY.

REPORT OF THE TIPPECANOE COUNTY AGRICULTURAL SOCIETY.

To the Indiana State Board of Agriculture:

To give satisfactory answers to the many questions embodied in your circular, or to render a statistical account of the aggregate of crops raised in our county the present season, would be, (under the circumstances,) impossible. Could means be adopted for obtaining an annual agricultural census of the several districts throughout the county, the task of rendering an account, by the aid of such statistics, would not be difficult.

During the past year, an attempt has been made to establish a county agricultural society; but the efforts thus far have been in a measure unsuccessful. The state of our markets is such at present that most of our farmers manifest a great want of energy in all things pertaining to agriculture: hence the depressed condition of affairs in the management of the society. An attempt will be made, however, during the present winter, to enlist more practical farmers among the number of subscribers, hoping thereby to increase the treasury sufficient to secure to us the benefits granted by the act of the Legislature, approved February 14, 1851, entitled "an act for the encouragement of agriculture," which will undoubtedly place the organization upon a prosperous and permanent basis. The task of establishing a society in a district where the sentiments entertained by the people are so adverse to such "innovations," is attended with considerable labor and vexation.

When the time honored prejudices of our old fashioned, anti-progress farmers shall have been overthrown, and a general and liberal agricultural education substituted, we may expect a better condition of affairs.

Wheat.—This crop is by most of our farmers considered very uncertain; the principal losses arising from winter killing or "freezing out;" but we are inclined to believe that the want of success is attributable to the careless manner in which it is cultivated. The usual manner of seeding ground for wheat is to sow it among standing corn during the months of September and October, and even so late as November, the covering being done with a shovel plow—running frequently in the same ditches made at the last tending of the corn, which leaves the surface exceedingly uneven. So soon as the freezing and thawing of winter commences, the ridges crumble and partially fall into the ditches, exposing the roots of the plants that grow upon the higher portions of the surface. These plants must, in consequence, perish, or should they survive this trial, are so sickly that they fall before usual harvest time. In these causes enumerated, chiefly lie the want of success in cultivating this valuable cereal, which might, with proper tillage, be made a comparatively remunerating crop.

The ground for wheat *should be* summer fallow, or ground from which oats has been harvested. The plowing should be performed during the early part of August. The plow should be run at least eight or ten inches deep, and subsoiled if possible, especially if the subsoil is clay. The roots of the plants will strike downward to the full depth that the soil has been stirred, which ensures firmness to the stalk. A soil stirred very deep is thereby rendered more permeable, and will more readily absorb the summer rains and fertilizing gasses which are returned through the agency of capillary attraction and the fibrous roots to the plants, enabling them to perfect and mature their grain, whilst on shallow soils the water runs off instead of being retained; and should a protracted drought follow, the result must inevitably be a parched and prematurely ripened grain. But to return to the manner of cultivation: After the plowing is completed the drag harrow should be used twice, traversing in the direction of the fur-

rows following the plow—then crosswise. Should the ground be cloddy, a heavy roller must first be used to crush the clods; in such case a second harrowing is unnecessary. The ground should then be allowed to rest and become settled until the beginning of September, when the wheat may be sown upon the surface without further preparation, at the rate of a bushel and a half to two bushels per acre, and plowed in about three or four inches deep, taking a narrow furrow-slice of not more than a foot in width, after which the ground should be smoothly rolled, which presses the earth compactly around the seed, enabling it the sooner to absorb moisture, causing a speedy germination, which is always desirable.

Although recommending the use of the plow, we do not hesitate to say that wheat planted with a drill has many advantages over that sown in any other way; and where the use of a machine can be obtained, we would recommend its use. Wheat planted with a drill allows a free passage of air throughout the field without obstruction, while the stalks from their position are better calculated to support each other. The seeding thus carefully performed, the plants are ensured a full depth of root, and the surface being level, they cannot be exposed by the slaking of the earth that covers them.

The kinds of wheat cultivated in the county is not confined to any particular variety. We have noticed the bearded and smooth Mediterranean, the common red chaff, and some varieties resembling the Genessee white—all kinds being cultivated with about equal success; though some of our farmers are of the opinion that the varieties of Mediterranean are more certain of a remunerating yield, and less liable to the attacks of the Hessian fly. Our farmers are not so particular in selecting seeds as they should be. By a little precaution in this matter, losses arising from rust and other diseases might in a measure be obviated. In obtaining seed care should be taken to secure varieties from more northern localities than those in which they are intended to be cultivated. It ensures an earlier harvest than when seeds are selected

from grain grown in a more southern climate. When it is impracticable to obtain seed as recommended, it is advisable that they should be selected from different qualities of soil. Should the soil be of clay, get of wheat grown on sandy soil, and *vice versa*.

In ordinary seasons the crop is ready for harvesting by the beginning of July. It is usually left standing until dead ripe, which is not advisable, the results of all experiments proving the contrary. English farmers being so celebrated for the exactness manifested in pursuing a course of agricultural experiments, we may be pardoned for quoting here the plan and result of one of the many trials made in the harvesting of wheat. J. Hannam, Esq., of Yorkshire, England, experimented as follows:

Quantity No. 1 was cut a month before fully ripe.
Quantity No. 2 was cut three weeks before fully ripe.
Quantity No. 3 was cut two weeks before fully ripe.
Quantity No. 4 was cut two days before fully ripe.
Quantity No. 5 was cut when ripe.

Taking one hundred pounds of wheat from each quantity cut, it yielded flour and bran as follows:

No.	*Flour.*	*Seconds.*	*Bran.*
1,	75 lbs.	7 lbs.	17 lbs.
2,	76 "	7 "	16 "
3,	80 "	5 "	13 "
4,	77 "	7 "	14 "
5,	72 "	11 "	15 "

"It thus appears," says Mr. Hannam, "that No. 3, (cut two weeks before fully ripe,) is superior to all other varieties; giving more per bushel than No. 5, (cut when fully ripe,) by 6½ lbs. of flour, and a gain of about 15 per cent. on the flour of equal measure of grain. 100 lbs. of wheat of No. 3 makes 80 lbs. of flour, while 100 lbs. of No. 5 makes but 72 lbs.; showing a gain of 8 per cent. in favor of grain cut raw.

"In grinding it was found that No. 5 cut the worst—even

worse than No. 1. No. 5 contained a greater quantity of flinty particles which would not pass the bolt, than in any of the others. The bran from No. 5 was coarse and heavy, while that from No. 3 was thin as a bee's wing."

Mr. Hannam extended his experiments to some length, and sums up the advantages of cutting wheat two weeks before fully ripe as follows: First, there is a gain of 15 per cent. of flour upon equal measures. Second, a gain in the weight of straw of 14 per cent. Third, flour produced from No. 3 was far better in quality than that produced by the grain cut at any other time.

If our farmers would adopt the practice of cutting wheat two weeks before fully ripe, they would not only secure the benefits accruing from the increased weight of flour and straw, but would secure their crops from the devastating influences of rust, which usually makes its attacks about the time of ripening.

The crop is generally harvested with the common grain cradle, or where convenient, the patent reaper is used. As soon as practicable after harvesting the crop, it is hauled to some convenient place in the field, where it is threshed with a machine, and the grain placed in a rude crib or bin made of common fencing rails, the inside being lined with straw to secure it from wasting. (?) This course is unquestionably wasteful, but is adopted more from necessity than choice, as a very few of our farmers can boast the possession of a barn or granary. But one benefit arises from this method of saving grain, and that is, the liability of old bins to the incursions of wevil, is in this completely obviated. Grain thus stored is usually removed during autumn or early winter to market.

The average produce per acre for the past year will exceed that of the preceding considerably. Crops improperly cultivated have been harvested at an average of not more than 12 bushels per acre; while as high an average as 35 bushels has been secured from ground tilled as recommended. The average for the season may be safely rated at 20 bushels per

acre, as per opinion of those acquainted with the crops of the county, and that elicited by our own observation.

The market for all grain or produce of any kind is at the city of Lafayette, our county seat, where there is an unlimited demand.

The prevailing prices of wheat for the season has been from 40 to 50 cents; the latter being the present price.

Corn.—This is the staple crop of our county. The principal reason that it is so universally grown is, that it is a certain crop. Failures are so common among all other cereals that the culture of them has in a great measure been abandoned. The amount raised is increasing rapidly. Our prairies are being settled by farmers emigrating principally from the eastern and middle States, who usually exhaust their capital in the purchase and improvement of their farms, and consequently cannot engage in the raising of live stock for want of means. The only alternative left is to invest their labor, which in almost all cases is appropriated to the culture of corn.

In preparing ground for corn it is plowed as early as the season will admit—usually during the month of April or beginning of May. In the preparation of the ground, most of our farmers are very careless. The course commonly pursued is to plow very shallow, and "mark out" immediately after; whilst the only proper method should be to plow deep, *very deep*, and pulverize finely with the roller and drag harrow previous to marking. Should the soil be sufficiently friable, the use of the roller may be dispensed with. Ground prepared in this way has many advantages, particularly in the early part of the season. The ground being rendered permeable can absorb the moisture, thereby enabling the young plants to endure more drought. In ordinary cases, where the former careless manner of preparation is pursued, the young plants suffer so severely, should the early part of the season be dry, that they scarcely ever re-establish their wonted vigor. So soon as the young corn is up, or has

attained the height of two or three inches, the "tending" commences. First the drag or tooth harrow is used, the centre teeth being raised. This serves to loosen the soil and disturb or destroy the young weeds that may have commenced growing. After it is thus gone over, then follows in most cases the shovel plough. This implement is used almost exclusively throughout the county, and sometimes unquestionably doing great injury to the crop. We admit (all that is claimed for it) that it is a perfect weed destroyer; and at the same time do not deny that it is a perfect corn destroyer too.

The great injury generally done is in running too deep close to the corn, thereby cutting and displacing the roots. This course of constant irritation being pursued, the plant is forced to form new fibrous and lateral roots, which tends to stimulate the plant with an over-abundant supply of sap, and causes an enormous growth of stalk, but proves detrimental to the formation of grain. Were it in place we could give as evidence, to prove the assertions made, the results of many experiments which have proved satisfactory and successful. If this course of treatment is beneficial to corn, it naturally follows that it would benefit most other plants while growing, and we had as well apply the axe to the roots of our fruit trees. Any observing, practical farmer can easily satisfy himself that this barbarous practice is unadvisable, by a few similar experiments with other objects of the vegetable kingdom. But we fear we are digressing from the duty of rendering a report of the manner of cultivation.

The proper method of culture, as adopted by most eastern farmers, (who have satisfied themselves with the ability of the shovel plow, or "go-devil,") is to plow very deep, pulverize finely, and in tending the crop, use a cultivator or other implement of like utility to stir or loosen the surface and keep the field clear of weeds. Were this course generally adopted and practiced with us, our statistical reports

would undoubtedly show an increase in the aggregate, of at least 15 or 20 per cent. over the present returns.

As other evidence in defence of our position, we would refer any one interested to the many accounts published of extraordinary yields of corn, in either of the great corn growing States of the west, (particularly Ohio, Tennessee or Kentucky,) and where an explanation of the plan of production is appended, we venture to challenge the instance in which the shovel plow or any other ditching machine has been used in tending the crop. In every such case (that has come under our notice,) a cultivator or implement of similar construction has been used.

The kinds of corn that are cultivated are generally of the gourd varieties. Though we may in many cases, without much difficulty, discover evident traces of almost all existing varieties in the same field. An attempt has been made to introduce the Virginia white gourd seed, but the length of our seasons are unsuited to the culture of so late a variety. This however, mixed with the Pennsylvania or Sioux flint, gives weight and plumpness to the grain, and ensures a much earlier and more certain harvest.

We have introduced a variety of pure yellow corn, (slightly indented) from Southern Ohio, which promises to yield abundently, much more so than any kind we have noticed in the county. The only precaution necessary in the cultivation of it is, to plant early, (about the first of May) as it is rather later than the varieties commonly in use.

The average yield per acre for the past season, is not so large as that of the past. The early part of the tending season being so rainy, that in many cases, farmers were compelled to abandon large fields that had been planted, and confine their labor to only a part of the ground they had intended to cultivate—many entire crops were in consequence, but slightly tended and the result was a diminished yield. We think the average for the present season may be rated at forty bushels per acre, although this seems a low estimate, it

is in accordance with the opinions of those practically acquainted with the measurement of crops and is therefore as correct as it is possible to conjecture.

The cost of production upon an acre of corn requires some calculation, but an estimate sufficiently accurate may be made by comparing the customary prices of labor with the amount of work usually done by a "hand" in a day; the result would be as follows, viz:

Three-fourths of a day plowing at $1 50 per day,		$1 12½
One-fourth of a day harrowing at $1 50 per day		37½
One-fourth of day marking and planting, (one hand and boy)		50
Three times tending with cultivator		1 00
Seed		05
Cost of production		$3 05
Harvesting and cutting up		62½
Husking and cribbing 60 bushels at three cents per bushel		1 80
		$5 47½
Marketing 60 bushels at twenty cents per bushel	$12 00	
Fodder	1 00	
Value per acre		$13 00
From which deduct interest on land	$1 20	
Added to whole cost	5 47½	
Amount		6 67½
The result as will be—Value		$13 00
Cost		6 67½
Nett profits		$6 32½

We rate the average yield at sixty bushels per acre which we consider quite reasonable of any ordinary season, if the crop is properly planted and tended. If a good season it

may be increased to eighty or even ninety bushels. The price (twenty cents) is low; although it is the present price, it is no criterion, as it is below the price paid for many seasons past. We think twenty cents per bushel can be realized as an average price for the crop exclusive of the cost of hauling to market, as is represented by the foregoing calculation.

Oats.—This crop is not cultivated to any extent, not being so certain to ensure a remunerating yield as the corn crop. Our alluvial soil is too rich to accord with its habits; it causes an overgrowth of straw, and in consequence falls before the grain is mature. Of a dry season only the crop is profitable.

These remarks refer of course to our soil in its naturally fertile condition. Lands that have been cultivated for many years and are comparatively sterile, will yield a reasonably good crop, however wet the season may be.

The varieties cultivated, are chiefly confined to the white, the straw of the black growing too rank.

The present season being unusually wet the amount produced or harvested will be comparatively small. In many cases where the crop had fallen before fully ripe, much of it was burned upon the ground to save the trouble of removing it.

The average yield per acre would have been very great the past season, if the disasters referred to could have been evaded. We may, however, be justifiable in placing the estimate the same as though such had not occurred. Many crops we have noticed would undoubtedly have yielded as much as forty or fifty bushels to the acre, but the average could not be justly rated at more than thirty-five bushels.

The present prices for oats are fifteen to seventeen cents.

Rye.—Very little raised. The full amount raised in 1850 in the county according to the census statistics was but 160 bushels. From the little experience we have had in cultivating the crop we consider it equally, if not more profitable than wheat, not being liable to so many casualties.

If our farmers would attempt the culture of it, there is

little doubt, but that they would be amply compensated. The same remarks are applicable to the barley crop, though of this there is more raised.

The present price of rye in our market is thirty cents.

Flax.—A new era is about commencing in the cultivation of this valuable crop, since the discovery of the manufacture of flax-cotton. Should the anticipation of the inventor, and others engaged in the manufacture be realized, our farmers cannot commence raising it too soon. There is no doubt that our soil is well adapted to the cultivation of it, the certainty of which will be tested during the coming season by the Hon. H. L. Ellsworth, President of our society, who contemplates seeding several hundred acres with flax, the result of which may be presented to the Board in some subsequent report.

Grasses.—It is surprising that so little attention is given to the cultivation of tame grasses for winter fodder. The actual value of hay in wintering stock is almost incalculable, with which fact most of our farmers seem unacquainted, or if familiar, are too dilatory to avail themselves of its advantages, dependence being placed chiefly upon corn fodder, straw, or natural grasses.

We suppose that one prominent reason why it is not more generally grown is, that it does not yield abundantly; but here in many cases the farmer is in fault, either for want of proper culture, or too apt to be a want of seed. We have known instances where but three quarts of seed were sown to the acre. Such a course of farming is a burlesque upon good husbandry.

Several experiments having been tried within the few past seasons in the seeding of grass lands, we are disposed to favor the most successful, i. e. that of sowing in autumn with the wheat crop, as is practiced with universal success in all eastern States. Sowing grasses with wheat is productive of many advantages. The varieties usually sown being meadow cats-tail or timothy and red clover. The presence of the

latter particularly is considered by many foreign agriculturists as indispensable to the wheat, with which it is sown. Its tap roots often penetrating to the depth of a foot serving as channels for the admission of rains into the soil and designed to absorb from the soil and atmosphere, many superfluous substances, which would give grossness to the wheat plants, thereby causing the bursting of sap vessels and promoting the growth of fungus and parasitical substances on the stalk, usually known as rusts. The grass also is benefitted by being sown in the manner referred to, as the wheat plants in return very gratefully protect or shade the young grass from the rays of the scorching sun by which the crop is not unfrequently destroyed or burnt out.

The grass seed should be sown immediately after the wheat is covered, while the ground is yet moist on the surface, after which the roller should follow, which covers the seed sufficiently. Not less than a peck of seed should be sown on an acre; either all timothy or five quarts of timothy and three of clover. The cost of producing grass in the manner recommended is very trifling as no additional labor is necessary in preparing the ground.

The advantages of mowing on a surface so smoothly rolled must be experienced to be appreciated.

Experiments are being tried with grass seed, (timothy) by itself, and also with oats as a partial protection against the sun and severities of winter; the results are yet in mystery, but may be reported hereafter. The amount of hay made during the past season will greatly exceed that of many previous. The latter part of spring and early summer being unusually rainy it favored the growth of grass materially. The produce on well taken grass lands will average very nearly one and a-half tons per acre.

The price per ton in Lafayette at the present time, is quoted at $10.

Potatoes.—Our soil is well adapted to the cultivation of this crop, which would undoubtedly be one of the most prof-

itable, were it not for the disease so prevalent for a few years past. Since the appearance of the contagion the production of the crop has been almost abandoned, except in small quantities for domestic use or home market; none scarcely being raised for transportation. Considerable reluctance is manifested by most farmers to experiment in the culture of this crop, in order to devise means to arrest the progress of the disease. They seem to be awaiting the result of trials by others.

We are aware that numerous scientific experiments have been made, and as many remedies recommended, but have in most cases proved a failure, and where successful are to most farmers inaccessible.

By a course of careful observation, perseveringly practiced almost since the first appearance of the disease, we are led to believe that the principal cause of disease or rot is an *excess of moisture*, or at least it is promoted by moisture. We give a brief statement of means whereby the disease may to considerable extent be obviated. In selecting potatoes for seed care should be taken to get those of a large size, they are better matured than small ones, and will ensure a more speedy and vigorous germination, which is desirable.

The planting should be performed as early as April first, or at least as early as the condition of the ground will admit, of which the farmer must be judge. The ground selected must be a *side hill* or at least a location on which water never stands. The rows or drills running in a direction that they will not obstruct running water. The plowing (which should be very deep and subsoiled if possible,) to be done some days previous to seeding time to allow the earth time to settle sufficiently to cast a furrow whilst planting.

These precautionary measures being observed, all that remains to be done, is to to plant well and keep the field clear of weeds while growing by proper tillage, and the crop will soon ripen, perhaps by the beginning of August if the planting is done as early as recommended. So soon as the vines

are dead and the skin set, they are fully ripe and must be gathered.

The neglect to gather previous to the commencement of the fall rains is almost equivalent to the abandonment of the crop to the rot, which will immediately follow, should it be in any way susceptible to the infection.

The digging or rather plowing out should be done during the *dry weather in August.* We have known crops which were apparently sound, to have been partially removed at the time recommended, while the balance (which was left a a few days to be saturated by September rains,) were scarcely worth the digging. The *first* gathering remaining sound.

By strictly pursuing the foregoing plan for several years past both in this county and southern Pennsylvania, we have never sustained damage to any extent, except where the planting was unavoidably done in low places in the field, and there it seemed impossible to evade the disease—even alkalies proving unavailing.

The average of the crop produced cannot be satisfactorily obtained, little regard being given to the measurement of any produce not designed expressly for the market. We succeeded during the season of 1850, in producing an average of 340 bushels per acre, and have no hesitation in asserting that an average of 200 bushels may be raised of any ordinary season, provided they are properly tilled.

The most profitable variety that is cultivated, we believe to be that commonly called the Pink-eye, so called from the color of the pits or eyes; but we think properly called by English producers, Moulton White; their skin is white and shape round. We do not like them so well as the Mechanock or Mercer for family use, but are certainly more profitable to raise, not being so susceptible of disease. We have mixed the two varieties in planting the same field, and have discovered the Pink-eyes to be perfectly sound, whilst the disease attacked only the Mechanocks.

The cost of production per acre would be about as follows, viz:

First plowing three-fourths of a day	$1 12½	
Second plowing at planting	1 50	
Two boys one day planting	1 00	
Ten bushels seed at fifty cents per bushel,	5 00	
Four times tending, one hand and horse,	2 00	
Two days plowing at gathering	3 00	
Two days for three boys gathering	3 00	
Interest on land	1 20	
	$17 82½	
Sale of 200 bushels at twenty-five cents, (supposed crop)		$50 00
From which deduct hauling, five cents per bushel	10 00	
Added to whole cost	17 82½	
		27 82½
Nett profits		$22 17½

Or more than the nett proceeds of three and a-half acres of corn.

This calculation is made for soil where there is no additional cost for manuring, which if done would yield proportionately.

The cost of seed is a considerable item of expense, the estimate is made at a price which they are supposed to be worth at planting time. The price (twenty-five cents,) sold for is low, being less by twenty-five per cent. than the present low market prices. We have sold potatoes in Lafayette at seventy-five cents per bushel.

Cattle.—There has been more attention paid to the breeding and rearing of this stock than to any other, it comprising the principal production of some of our best farms. Good breeds have been introduced from Kentucky and Virginia, bred originally from imported stock; the correct pedigree

however, is at present difficult to trace. We find colors and forms which denote relationship with the long and short horned Durhams, Devon, Ayrshire, Alderny and almost all the original breeds known. The best stock we have, is a cross of the Durham and Devon, which generally gives form, color and disposition almost unattainable by any other crosses.

We might here appropriately make some remarks relative to the selection of stock designed for different purposes, cost of production &c.; but a want of time and a fear of intruding on your time and space urges us to desist.

But little attention has yet been bestowed upon the dairy: there is not the least doubt that a well established butter dairy in the county would be a source of considerable profit to those engaged in it.

The prices of butter and other dairy produce in our market compare very favorably with the expense of conducting it; good cows may be selected from almost any district in the county; some that we have noticed and whose qualities have been tested, could be placed in fair competition with the best animals in good eastern dairies.

The prices of good cows vary according to quality and conditions of sale. For cash sales one might rate from $12 to $20; but when sold on time, ten per cent. may be added. This, however, is no standard. The prices of steers rate according to age and qualities; good one year olds from $8 to $10; twos, $12 to $14; threes, $18 to $22. These prices, compared with the cost of raising on our cheap prairie pastures and corn fodder, represent a fair profit.

Horses.—Although reference to this indispensable part of farm stock is not made in your circular, we venture a few hints relative to their breeding, supposing the omission unintentional. Quite a brisk business has been done for a few years past in raising horses; the prices being such as to justify the farmers in investing considerable capital in the business. But it is a matter of regret that no particular or distinct

breeds are bred. Evident indications of relationship with the old Connestoga draft, down to the Irish hunter, or similar anomalies, may be detected in the same animal. They are bred for no particular purpose. If more attention was paid to raising horses for the field and road separately, it would be more profitable. In selecting a horse for the road, we may be pleased with the formation of body and neck, whilst we are compelled to reject the animal on account of clumsy limbs or pinched nostrils, and the same difficulties are encountered in selecting for farming purposes. It is well known to all acquainted with the form and habits of the horse, that breeds distinct from each other in many respects, and adapted to all purposes desired, from the dray to the saddle, may be formed. In breeding for the eastern markets it is indispensable (to be profitable) that a breed should be distinct in itself.

We had better raise a horse worth $200 than a mongrel worth $50, at the same cost.

The breeding of mules has been more generally engaged in, they being more profitable than horses. Colts at usual weaning time, (from 4 to 5 months old) are worth but $12 to $16, while mule colts of the same age will readily bring $28 to $35; at two years old $60 to $70, and the demand increasing.

Sheep.—But little attention is given to the raising of sheep as a source of profit. A few are kept by most farmers, principally for family use; an occasional one being slaughtered for provision, and the annual "clip" exchanged at the factories for blankets or clothing.

The health of these small flocks is good, except in a few cases where the foot rot has appeared.

We fear that our level prairies are not well adapted to the growth of sheep, particularly in marshy grounds. The subject of wool growing on our prairies has been speculated upon and ably discussed by many eastern agricultural journals; but any one acquainted with the sheep, its habits and liability to disease, would at a glance pronounce the flat prai-

ries of our country unsuited to their breeding, especially in large flocks; ground very undulating or even rugged and mountainous being better adapted to their habits. A few sheep of the finer qualities or grades of merinos were introduced into the county a few years ago, but have, through careless breeding, degenerated. Some of the coarser breeds, with large carcass, might be made very profitable by fattening for the butchers; but the encouragement for raising the smaller breeds for wool is not at all flattering.

Hogs.—Considerable carelessness is manifested in the breeding of this invaluable stock by most of our farmers. A hog is a hog! no matter how large the ears, snout or legs; they may form almost the entire animal, still they are kept and bred from. One great and culpable error committed by many, is breeding sows too young. It is nothing unusual to see one of six or eight months old, with a litter of a half dozen pigs at her side. This litter, of course bred by a sire of the same age of the dam, and perhaps of the same litter, the breed soon becomes degenerate.

An attempt has been made by some farmers to introduce good breeds, and they are still to some degree sustained, but in a very limited number of cases. They have been principally of the small Berkshire breed; their form is neat—color, black; size quite small, which renders them unprofitable for the market, especially when kept for a length of time. This is the principal cause why they have not been more thorough bred.

The number of hogs sent to market this season is not so many, it is supposed, as that of last year. The prices of corn rating so much higher last year than this, it was considered unprofitable to feed so much pork; consequently all hogs of sufficient size were disposed of before regular wintering season commenced, and the number thereby much diminished. All farmers, however, who adopted such a course, have regretted the step taken. The difference in the present prices

of the two marketable commodities, reveals to them that the course was injudicious.

The habits of roaming to which our swine are addicted, makes them unprofitable. It seems to be their leading characteristic; even when penned such an unsettled disposition is manifested that they appear to have no satisfaction in living. Hogs well domesticated undoubtedly thrive better by 100 ₱ cent. than when allowed to range over the extent of territory usually allotted to them. We have seen hogs of these roaming breeds slaughtered at 18 to 24 months old, and not be made to weigh over 200 lbs., which is certainly unprofitable when compared with well domesticated animals that will weigh 250 to 400 lbs. at 12 to 15 months old; and this too, produced by the same, or perhaps less amount of feed than was consumed by the former. In most eastern States, hogs are confined to pens or small pastures during the entire year, and fed upon grain at three times the cost of western produce, and still they are considered profitable, although the prices of the pork produced seldom if ever is worth double the price of ours. Docility is an indispensable trait in the character of a hog.

The present prices of pork in our markets are $3 @ $4, according to weight and quality.

Fruit.—Considerable attention has been appropriated to the culture of apples by some farmers in our county, but there is yet room for improvement, or at least for a more extensive outlay in the business. The varieties produced are generally good, among which we may name the Spitzenberg, Vandever, Rambo, Bellflower, Newtown and other Pippins, Greening, &c., which for flavor, and (most of them) for keeping qualities, may be rated No. 1. Beside these there are almost innumerable varieties of inferior qualities, too tedious to mention.

From the fine specimens produced in our county, we should judge that our soil and climate are well suited to the growth and perfection of this fruit: and our only wonder is, that the

cultivation of it is not more general. Four-fifths of our farmers have no orchards at all. They seem to be too busy in raising corn to turn attention to any thing more profitable.

The best time, we believe, for transplanting trees, is late in the fall. So soon as the weather becomes cold enough to strip them of their leaves and force down the sap, they may be removed with comparative safety. Care should be taken not to break or otherwise injure the roots; to dig the hole large enough to receive them without forcing into unnatural positions, each fibre being allowed appropriate space. The earth, in covering, must be well pulverized and shaken among the roots in order that they may be firmly embedded to prevent any motion below the surface.

So soon as the tree is planted, three stakes should be driven into the ground triangularly, at a distance of about three feet from the tree, and well twisted straw bands attached to the tops of them, the other ends being fastened to the tree at or near the first limbs. These supporters should remain for one season at least, or until the tree has become so well secured as to ensure it against storms. These rules should be strictly adhered to. Many farmers consider the loss of their newly planted transplanted trees unaccountable, when the entire cause is, being loose in the ground and permitted to shake.

We might make some reference to the most approved methods of engrafting and budding, but it would be almost impossible without the aid of illustrations to explain it satisfactorily upon paper. As it is usual for most farmers to purchase trees already budded, we can perhaps make better use of space in recommending means for evading the depredations of insects or worms which sometimes destroy our orchards. The enemy most common among apple trees, is what is commonly called the borer. It is a small worm or grub, usually of a dirty white color; its attacks are made upon the trunk of the tree at or near the surface of the ground.

In order to prevent these incursions, the farmer need ap-

propriate but little time and expense, if attention is punctually given. The best and cheapest preventive is lime, which may be applied as follows: during winter or early spring, when the frost is out of the ground, with a hoe or spade remove the earth from around the tree to the distance of eight or ten inches, exposing the tops of the main roots; let this vacuum be filled with about a half peck of lime that has been previously well slacked, allowing the lime to form the entire surface between the tree and the surrounding earth.

Across this the borer will not venture; it is to them an impregnable barrier, and as an additional benefit will promote the health of the tree and entirely expel grass. Similar applications should be made at least once in a year, which will be sufficient.

Should the borer already have attacked the tree, the best method to extirpate is to force a small wire after them, which will effect the object, unless they have proceeded too far; in such event they must be removed by cutting. With care but little risk is sustained by this operation. It is better to venture than allow the enemy to remain, as in this case the destruction of the tree is inevitable.

To prevent the depredations of the borer upon the cherry, peach, plum, apricot or nectarine, coal ashes should be substituted for lime. The latter being too severe in its effects. A strong solution of soap may be used occasionally upon peaches or plums with benefit, the suds being applied to the trunk of the tree while hot.

Improvement of wet Lands.—This question, though last, is of the first importance to the grain raising farmer, who wishes to make improvements necessary for conducting farming operations properly.

Though ponds may be beneficial in conferring an annual irrigation upon the soil they occupy, they are unquestionably great obstacles to the proper arrangement of a farm; their presence being unavoidable, the only alternative left to the farmer, is to adopt means to discharge their contents.

Ditches or drains for this purpose are usually formed by manual labor. Numerous machines have been used but with little success. A more expeditious method may be adopted by the use of the plow. A space for a drain should be laid out of sufficient width to admit of two horses abreast. Furrows may be thrown both ways so deep as it can conveniently be plowed; after it is once gone over, the loose earth may be thrown out very speedily with a long shovel; the plow may then be used again and until a sufficient depth shall have been attained. In this way the labor of breaking the earth can be done by horse power, which is certainly preferable to breaking with a hand spade.

Open ditches are commonly used more from necessity than from choice, there being no material available with which a permanent drain can be constructed; the best material that can be used is flat or flag stone, they serving to support the earth, and are sufficiently open to admit of the passage of water. This material however, cannot be obtained. Tile might be substituted, but the expense renders them inaccessible to most farmers, consequently the presence of the unsightly open drains so common in our country must be used. The only objection that can be offered to the utility of the open drain (exclusive of appearance,) is the caving of the banks forming them, though this difficulty may be overcome by forming permanent banks of sod. Any farmer when breaking sod can easily haul off quantities sufficient to fortify his ditches. Pieces may be cut of six inches in width and any convenient length; commence by laying down the first piece flat in the bottom of the ditch, and continue building on this foundation, until the entire bank is covered; care being observed to break joints as in masonry. The grass growing from the edges of the sods soon forms a covering almost impregnable, which will ensure the banks against frost or any changes of weather.

We notice many ditches that are entirely insufficient to drain the ponds with which they are connected. This is of

course for want of proper depth, perhaps an incorrect calculation having been made at the time the ditch was made. A very cheap and simple method for calculating a proper depth or level being applicable, we may appropriately suggest it. Obtain the use of a large sized spirit level; drive a stake at the edge of the pond in a place where the water is on a level with the main body; the height of the stake may be of any convenient altitude, say five feet; upon this place the level, and adjust it in a correct position pointing in the direction of the required ditch; then direct an assistant to fix a stake at any required distance from the level, upon which place a conspicuous moveable object, which may be elevated at pleasure; by taking a correct sight or aim over the top of the level, the assistant may be directed to place the object at an altitude corresponding precisely with the level. The calculation is then easily made. For instance, should the height of the object be three feet from the surface of the ground, it is evident that a ditch of two feet must be dug at that point to be on a level with the pond; the depth of the pond being considered, and sufficient allowance made for fall, the labor can be easily accomplished with certainty. In this way every farmer can do his own leveling and dispense with the expense and services of a civil engineer.

Some remarks relative to the fertilizing influences of the irrigation of soils might here be in place, but time forbids.

Condition of Agriculture.—In a newly settled county, such as we occupy, it is hardly to be expected that agriculture should have attained the acme of perfection. Still it should be the desire of the farmer in any section to promote the advancement of agricultural improvement. The most prominent defect in conducting farming operations in our county, is a too free use of the plow and a desire to cultivate too much land. The very fact of attempting to produce thirty acres of corn with one hand and team is sufficient evidence, that it is done in a careless and slovenly manner. The amount produced, (generally an average of about thirty or

forty bushels per acre,) and the abundant crop of weeds occupying such fields is unmistakeable and conclusive testimony of the error committed.

A hand can neither plow nor half tend so large an area. Better save one half of the investment of money in a farm and appropriate double the amount of labor; were this course more general, our farming districts would present an improved aspect.

It is nothing unusual in many districts to find farms almost overrun with weeds in consequence of bad tillage. Large headlands being left of perhaps a pole in width, they are so thickly set with these stealthy intruders, that a view of the crop is almost impossible, and not unfrequently we find plats in the middle of the field entirely abandoned to the weeds, particularly if the spot be subjected to an overabundant supply of moisture. We find this to be the case where a field has been devoted to many successive crops of corn, the cause being a supply of seeds scattered by weeds that have grown after the crop has been laid by, which is sufficient to prove that the crop has not had necessary attention. This cause is evident from the fact, that upon newly broken sod, weeds are scarce. Subject any ground to regular western rotation, i. e., first year, corn; second year, corn and weeds; third year, weeds and corn; fourth year, weeds, and we will soon have an unmanageable farm. Every farmer should endeavor to cultivate no more ground than he can cultivate well, and in so doing be careful to return to the soil sufficient maure or fertilizing substances to re-establish the richness of his ground.

No general course of rotation being adopted, the same ground is usually planted to corn for as many as ten or even fifteen consecutive years. Many who have considered their lands inexhaustible, and have followed this ruinous practice since their first settlement in the county, now find their farms nearly worn out, and are compelled to use various means to restore their fertility.

The injudicious practice of impoverishing soil by a too free use of the plow, will soon ruin any country; it may make rich fathers, but will certainly leave to the children, or those who may subsequently occupy such a farm, a worthless and sterile soil, too poor to ensure even a comfortable living.

All farms should be so divided and fenced, that a regular rotation of crops may succeed each other. Ground should be put down to grass and allowed to rest for as many as three or even four years. If this course is pursued, and sufficient manure applied during the process of rotation upon the crop calculated to derive the most benefit from it, there need be no fears entertained by the farmer of deterioration in the fertility of his farm.

We hope it will not be inferred from the foregoing remarks that all the farmers in our county are pursuing the injudicious practices referred to, as such is not the case. Although a majority are in some measure addicted to slovenly habits in conducting their farming operations, still there are some who have redeeming traits. We notice many well cultivated farms in the county, that may be placed in fair comparison with those of any section of the Union. A commendable spirit of improvement seems to be pervading some districts, that will undoubtedly exert a beneficial influence over our whole county.

There is but little ground in the county that is not susceptible of cultivation. Our rich alluvial soil is adapted to the growth and maturing of all cereals. Our agricultural population is increasing. Our rail and plank roads hastening to completion; and our markets unlimited. These and other advantages accruing with rapidity, render our position desirable, and there is but little doubt that we shall soon be in possession of one of the richest agricultural districts in the State.

Conclusion.—In presenting our report, we have endeavored to confine ourself strictly to what is practical, and to express it in as plain a manner as it is possible to do. Our

recommendations have been made from observations or knowledge elicited from practical experience. We have endeavored to be brief, and in so doing feel that we have not done justice to any subjects considered; but to explain at length, the cultivation and use of grains; the propagation and treatment of fruit trees, or the best methods of breeding and improving farm stock, would be the labor of weeks and require the space of a large volume to give it publication.

Hoping that in the manner presented it contains the information desired, we respectfully submit it to the consideration of the Board.

JOHN LEVERING,
Cor. Sec. of Tippecanoe Co. Ag. Society.

COMMUNICATION FROM MR. J. J. BINGHAM.

LAFAYETTE, January 7, 1852.

JOHN B. DILLON, Esq.,
Secretary Indiana State Board of Agriculture:

DEAR SIR:—In compliance with the rules of the Board, annexed I forward you copies of the proceedings of the Tippecanoe County Agricultural Society since its organization. You will observe that as yet but little has been accomplished; the main object to the present period having been to awaken an interest in the society and progress in agriculture on the part of the farmers of the county. Those who take the most interest in the matter, propose that we shall hold a Horticultural and small Fruit exhibition next spring, and a general fair in the fall following. We have had no public addresses

yet, but in lieu thereof have endeavored to give the public meetings that we have held, a conversational character. This was thought the best way to develop practical views, and give the meetings a general interest.

The reports from the different canvassers to obtain members to the society have not yet been received in full, but I should judge that the society would number one hundred and fifty members. The annual fees are fixed at one dollar each. The society contains several farmers of great experience and energy, and whose practical experiments in the modes of cultivation, the most profitable crops, and in the use of new agricultural implements, will be of great benefit to that portion of the community.

An experiment will be made next season by one of our farmers, on a large scale, to test the practicability and profitableness of raising flax cotton on the prairie. This will be a matter of great interest if successful, not only to the present owners of the prairie land, but to the future occupancy of the immense tracts that extend to the west of us.

In due time these various experiments will be made known through our society for the benefit of the agricultural community generally. These facts I have named to give an idea of the usefulness of the society. As to its progress, its members generally are of that class who will give it an onward impulse.

The corresponding secretary of the society has replied in full to your other inquiries, to which, for further particulars, I beg leave to refer.

Respectfully,

J. J. BINGHAM,

Rec. Sec. Tip. Co. Ag. Society.

[From the Lafayette Journal.]

AGRICULTURAL SOCIETY.

It will be noticed by the official proceedings in another column, that an agricultural society for this county was organized on the 5th inst, and that officers were elected to serve until the annual meeting, which occurs on the first Saturday in June next. An adjourned meeting of the society will be held in this city on Saturday next, when it is hoped that all who feel an interest in the subject of agriculture will make it a business to be present, unite with the society, and lend a helping hand to give it value and efficiency.

Mr. Benbridge has presented the society with a beautiful blank book, prepared expressly for the object, in which the constitution and by-laws of the society have been transcribed, and to which the signatures of the members are to be attached. This book can be found at the office of Messrs. Benbridge & Mix, and every citizen is invited to call there and enrol his name as a member.

With union and a little effort, a society can be established which will impart a great deal of interest to, and aid materially in developing the resources of, and the best methods of cultivating the soil, and the improvement of stock, of horticulture, of fruit, of agricultural implements, and all those auxiliaries connected and associated with agriculture. We hope there will be a general turn out on the occasion.

TIPPECANOE COUNTY AGRICULTURAL SOCIETY.

A meeting of the citizens of the county was held in the court house, pursuant to notice previously given, on Saturday, the 8th of March, for the purpose of forming a County Agricultural Association.

The meeting was called to order by T. T. Benbridge, Esq., on whose motion Lemuel Devault, Esq., was appointed chairman, and J. J. Bingham, secretary.

On motion of John Levering, a committee of five was appointed, consisting of T. T. Benbridge, A. Loyd, J. D. Smith, John Levering and J. J. Bingham, to draft a constitution, by-laws and organization for an agricultural society for Tippecanoe county, to be submitted to an adjourned meeting.

On motion of Mr. A. Loyd, the following committee was appointed to solicit subscribers to the association:

Jackson township—Isaac Shelby, J. W. Odell.
Randolph—Thomas A. Tayler, L. Devault.
Lauramie—Samuel F. Clark, Samuel Richards.
Sheffield—Basil Steele, Samuel Favorite.
Perry—Jethro Wade, David Gushaw, E. King.
Washington—Robert Fisher, John Cunningham.
Tippecanoe—Samuel McCormick, William Kendall.
Wabash—Philip McCormick, Jesse B. Lutz, Henry B. Oiler.
Shelby—Benjamin Eastburn, George Woolfer.
Wayne—Dr. Turner Welch, John O. Wattles.
Fairfield—T. T. Benbridge, Luther Jewett, E. M. Weaver, James Earl, John Purdue, O. L. Clark, H. L. Ellsworth.

On motion of Mr. Levering, it was

Resolved, That the annual payment of the sum of one dollar shall be required from each member of the association, which shall be a condition of membership.

On motion of Sanford C. Cox, Esq., M. H. Winton, W. C. Wilson and Geo. Kettle were appointed a committee to make arrangements for the next meeting.

On motion of J. D. Smith, it was

Resolved, That a meeting of the citizens of the county be called on the first Saturday in April next, to complete the organization of the association; and that the several committees appointed by the foregoing resolutions, be requested to report at that time.

On motion, the meeting adjourned.

LEMUEL DEVAULT, *Chairman*.

J. J. BINGHAM, *Secretary*.

TIPPECANOE COUNTY AGRICULTURAL SOCIETY.

An adjourned meeting of the citizens of Tippecanoe county, favorable to the formation of an agricultural society, was held, pursuant to notice, in Lafayette, on the 5th day of April.

On motion, T. T. Benbridge, Esq., was called to the chair, and J. J. Bingham was appointed secretary.

The committee who were appointed, at the previous meeting, to draft a constitution and by-laws for an association for this county, presented a copy

of each, which, after amendment and discussion, were adopted; and the society was then duly organized.

The following officers were then elected to serve until the annual meeting on the first Saturday in June:

PRESIDENT—Hon. Henry L. Ellsworth.

VICE PRESIDENTS—F. Leaming, M. D., John Levering, Henry Oilar.

TREASURER—Thomas T. Benbridge, Esq.

CORRESPONDING SECRETARY—O. L. Clark, M. D.

RECORDING SECRETARY—J. J. Bingham.

MEMBERS OF COUNCIL—Dr. Turner Welsh, Wayne township; Andrew Insley, Jackson tp.; G. S. Forman, Lauramie tp.; L. Devault, Randolph tp.; S. Elliot, Sheffield tp.; E. King, Perry tp.; J. Fisher, Washington tp.; Allen Loyd, Fairfield tp.; John Barnard, Tippecanoe tp.; Canada Fink, Wabash tp.; Benjamin Eastburn, Shelby tp.

It was then resolved that the officers and council of the society be appointed a committee to solicit subscriptions to the constitution, and receive the annual dues, which was fixed at one dollar per annum.

The society then adjourned, to meet in the court house in Lafayette on the 19th instant, when it was hoped that all good citizens who feel an interest in agriculture will be present and unite with the society.

T. T. BENBRIDGE, *Chairman.*

J. J. BINGHAM, *Secretary.*

TIPPECANOE CO. AGRICULTURAL SOCIETY—ANNUAL MEETING.

The regular annual meeting of this society was held on the 7th instant, at the court house in Lafayette, the Hon. H. L. Ellsworth, the President, in the chair.

On motion of W. K. Rochester, Esq.,

The society proceeded to elect its officers for the ensuing year.

Messrs. T. T. Benbridge and John Levering were appointed tellers.

Mr. Ellsworth was then nominated by Mr. Rochester for a re-election to the Presidency of the association for the ensuing year, and was unanimously elected.

In accepting the trust Mr. E. stated that he deemed the election and position more honorable than a seat in Congress or the Gubernatorial chair, and that he should take the highest pleasure in doing all in his power to advance the interest of agriculture—the basis of our wealth and prosperity.

Messrs. Forman Leaming, Ebenezer King, L. Devault and H. Oilar, were then elected Vice Presidents;

T. T. Benbridge, Treasurer;

John Levering, Corresponding Secretary;

J. J. Ringham, Recording Secretary; and

Luther Jewett of Fairfield, H. Leaming of Randolph, R. Fisher of Washington, Mr. Elliott of Sheffield, G. S. Forman of Lauramie, J. B. Lutz of Wabash, Jethro Wade of Perry, J. Shaw of Tippecanoe, I. Shelby of Jackson, Turner Welch of Wayne, and B. Eastburn of Shelby townships, Council for the ensuing year, or until their successors be appointed.

The President stated that he would give the meeting a method of preparing corn for late planting which he had tested practically, having raised a good crop from seed prepared in that way, put in the ground on the 20th day of June, last year. Pour boiling water upon the corn and let it remain for 12 hours. Put it then in a heap and cover it with an old carpet or large cloth, for the purpose of retaining the heat, for one day. By that time it will commence sprouting, and it is ready to plant. A little saltpetre in the boiling water will aid the process.

The mowing machine and stalk cutter, in consequence of the break in the canal, had not arrived, but will be ready for exhibition at the next meeting.

It was remarked by a member, that it had been stated at a previous meeting of the society, that it would take four days to transport cattle from here to New York city, on the completion of the Lafayette and Indianapolis and Bellefontaine railroads. This estimate is too high. It would easily be done in *three* days, giving the cattle ample time at Erie to rest and feed, where they would have to change cars, owing to the increased guage of the Erie railroad track. It was thought that the saving in the weight of the cattle and the cost of driving alone, the present method of driving necessarily depreciating them 15 or 20 per cent. before they arrive at the market point, would fully pay the expense of transportation. The saving of time and interest and quick returns would enhance greatly the value of farming lands in the west, as, also, the profits of the agriculturist.

The best implements for breaking up the soil, was regarded a very important matter for the consideration of the society. A mechanic was coming here to manufacture from 500 to 1,000 plows each winter, and it was important that the best patterns should be selected. The President stated that he was experimenting with from 15 to 17 different patterns, in order to test the value of each, and suggested that a committee be appointed to examine and report upon the subject generally—and to forward the purpose would give the use of his plows.

Messrs. G. S. Forman, Elliott, Samuel Wilgus, John Cunningham and Lemuel Devault were appointed a committee to conduct the examination and report to the society the result of their experiments.

The subject of the improvement of stock was then introduced. It was stated that some extraordinary good cattle were shortly to be brought into this county. One farmer, who had taken some pains to improve stock, had been

offered $75 dollars a yoke, for three year old working cattle. The President said that he had heretofore suggested the propriety of working cows, and saw no objection to it. He had determined to try the experiment. The notion existing against it was, he thought, a foolish prejudice. He had now cows yoked for plowing. In Switzerland it was a common thing to see cows working with horses in harness; and cattle were and could be worked with *bits* like horses. Why should cows be exempted from labor? It was a great loss to every man who kept cows, to have this kind of non-producers. Our wives, our mothers, labor while nursing their children, and no objection is offered to it. And among the brute creation, the mare suckles her colt, and yet she is not exempt from work. He thought that no reason existed for excepting cows from the common destiny—labor—unless the exemption extended to all who could plead the same excuse or cause.

Upon the subject of flax cotton some new, interesting information was given. It was deemed to be the most valuable subject that could be introduced for consideration. New inventions for the rotting and preparing this fibre for spinning, in the common cotton machines, so that the flax cotton should not cost over six or seven cents per pound, had been suggested in England, and also at Lowell, in Massachusetts. It only required six or eight bushels of seed to produce an acre of flax, and the stem will answer for the fibre. A new plan had been devised for pulling flax by horse power, thus saving a great portion of the labor which it now requires by doing it by hand. The mowing machine would work well in cutting flax, as it would mow from fifteen to twenty acres per day. The advantage of flax over cotton is, that while the seed of cotton is worth nothing, that of flax will alone pay the cost of raising the crop. The texture of flax cotton is fine and beautiful, and looks like silk. It takes a beautiful dye. It can be raised cheaper than cotton. The culture of flax is well adapted to this section of country, and the advantages it possesses for raising it places this part of the west in a high position. In raising it, the ground is to be plowed in the fall and the seed can then be harrowed in. This new thing should be hailed as an indication by Providence that we shall not longer be dependant upon cotton.

The President stated that he was building 27 miles of his new fence, which would take but 6,000 feet of lumber to the mile. Its advantages were not only on account of its cheapness, but that it could be easily taken up and removed. He stated also that he turned sheep into his cornfields in July, and that they eat the cockle and weeds without disturbing the corn. These new kind of cleaners not only destroy injurious weeds, but at the same time sustained themselves without cost, making very cheap laborers.

The treasurer was ordered to have 500 copies of the constitution and by-laws, with the names of the officers and present members, printed and distributed.

The following subject was proposed for conversation at the next meeting: *The gathering and preservation of corn.*

The papers in the county were, on motion, requested to publish the proceedings of the society.

The next meeting will take place on the first Saturday in August next, at the court house in Lafayette, and it is hoped that every farmer in the county will be present on the occasion.

The new horse-power mowing machine, which has arrived since the last meeting of the society, will then be exhibited; also some new specimens of flax cotton, and other things of interest to the agricultural portion of the community.

J. J. BINGHAM, *Recording Secretary.*

VIGO COUNTY.

REPORT OF THE VIGO COUNTY AGRICULTURAL SOCIETY.

To the Indiana State Board of Agriculture:

The Vigo County Agricultural Society hereby respectfully submits its first annual report to your body:

The society was organized under the provisions of an act of the General Assembly, entitled, "an act for the improvement of agriculture," approved February 14, 1851, on the 16th day of August, A. D. 1851, when the following persons were elected officers, to-wit:

GEORGE HUSSEY, President.
THOMAS DURHAM, Vice President.
SAMUEL B. GOOKINS, Treasurer.
H. W. ALLEN, Secretary.

And the following persons were appointed Directors from the civil townships of said county, as follows:

Corey Barbour, of Harrison township.
Frederick Markle, of Otter Creek township.
John Bell, of Nevins township.
Wm. Ladd, of Lost Creek township.
Thomas Sankey, of Riley township.
Wm. Brown, of Pierson township.

Elijah Pounds, of Linton township.
Ransom W. Bentley, of Prairie Creek township.
John Weir, of Honey Creek township.
Thomas McCulloch, of Sugar Creek township.
James W. Shepherd, of Fayette township.

The society also adopted a constitution and by-laws agreeable to the rules and regulations of your honorable Board.

The society did not deem it expedient to hold a fair during the past fall, and therefore no awards were given for improvements in agriculture and household manufactures, &c.

Several meetings of the society have been held, and from the spirit manifested, it promises well to be useful.

These meetings were for the purpose of securing a permanent organization; as the sickness that generally prevailed at the time the society was organized, prevented it from accomplishing more than was accomplished, and it is trusted that this will be received as a satisfactory report.

This society will contribute largely to develope the rich resources of the county within its jurisdiction, and during the next year, we will be able to comply fully with our duty.

It would have been a source of pleasure for this society, to have furnished you with a statement of the principal kinds of agriculture productions of this county, the aggregate amount of the same, the average yield per acre of the principal crops, the value or current price of the products in market, the place where sold, and other information, as would have enabled you to have prepared a statistical table, in which this county would receive justice, as in reports heretofore made, her resources have been depreciated.

Respectfully submitted:

GEO. HUSSEY, *President.*

H. W. ALLEN, *Secretary.*

WAYNE COUNTY.

REPORT OF THE WAYNE COUNTY AGRICULTURAL SOCIETY.

To the Indiana State Board of Agriculture:

In compliance with the law of January, 1851, I beg leave most respectfully, to submit the following report:

The Wayne County Agricultural Society was organized on the 29th of October, 1849. Its constitution is in accordance with the law of the State subsequently enacted by the Legislature, on that subject, both instruments having been prepared by the same individual.

The officers elected were as follows:

DANIEL CLARK, President.

A. M. BRADBURY, JOSHUA ELIASON, } Vice Presidents.

ACHILLES WILLIAMS, Treasurer.

WM. T. DENNIS, Secretary.

Board of Directors.

Jacob Fender, of Abington township.
William Druley, of Boston township.
John P. Doughty, of Centre township.
Daniel Bradbury, of Clay township.
Deniston Thornburg, of Dalton township.
William Fulghum, of Franklin township.
Robert Murphey, of Washington township.
Dr. S. S. Boyd, of Harrison township.
Branson L. Harris, of Green township.
Edward Lawrence, of Jackson township.
L. W. Williamson, of Jefferson township.
David Willcutts, of New Garden township.
William Rupey, of Perry township.
D. P. Holloway, of Wayne township.

The following is the list of premiums offered, and which were awarded at the First Annual Fair, held at Richmond, on the 7th, 8th and 9th of October, 1851:

ON CATTLE.

Bulls.—Oregon, Druley & Davidson, 1st premium,	$6 00
" Osceola, Morrow & Co., 2d premium,	4 00
" Lord Nelson, Druley & Stanley,	Diploma.

BULL CALVES UNDER ONE YEAR.

Oregon.—George Davidson, 1st premium,	2 00
" Hiatt & Broaddus, 2d premium,	1 00

YEARLING BULLS.

Roan.—Hort Ferguson, 1st premium,	2 00
Daniel Boone.—Druley & Wiatt, 2d premium and diploma,	1 00

TWO YEAR OLD BULLS.

——, Hiram Sulliner, 1st premium,	3 00
Fortune.—W. D. Jay, 2d premium and diploma,	1 00

DAIRY COWS.

——, Nimrod Ferguson, first premium,	4 00
——, Sanders Lancaster, second premium and diploma,	2 00
——, John Maxwell,	Diploma.

COWS FOR BEEF.

Golden.—Barton Wiatt, first premium,	4 00
Adelaide.—Commons & Co., second premium and diploma,	2 00

HEIFER CALVES UNDER ONE YEAR.

Myra.—George Davidson, first premium,	2 00
——, Levi Druley, second premium and diploma,	1 00
Ruth.—J. Loder, (Fayette county)	Diploma.
——, N. Druly,	Diploma.

YEARLING HEIFERS.

Olive.—Dennis Druly, first premium,	2 00
Adelaide 2d.—Commons & Co., second premium and diploma,	1 00

FAT BULLOCK.

Wiggins & Shaw, first premium, - - - - - $3 00

WORKING CATTLE.

John Hains, - - - - - - - - - Diploma.

YEARLING STEERS.

Leopard—Daniel Clark, - - - - - - - - Diploma.
——, George Grimes, - - - - - - - Diploma.

HORSES.

Stallion for Draft.

Tennessee Boy—J. B. Walker, first premium, - - - - 5 00
Jolly Ranter—James Harris, second premium, - - - 2 00
Archy Lightfoot—John Baily, - - - - - Diploma.

STALLION FOR SADDLE.

Waggoner—Flem Wasson, first premium, - - - - 5 00
Rashaw—Ferris & Hiatt, second premium, - - - - 3 00
Cicero—W. Spinning, - - - - - - Diploma.
Bellfounder—Leonard & Co., trotting stallion, - - Diploma.

BROOD MARES.

Aaron Shute, first premium, - - - - - - - 4 00
N. Hipes, second premium, - - - - - - - 3 00
Joseph Rich, - - - - - - - - - Diploma.
Samuel Morris, - - - - - - - - Diploma.

FOR SADDLE HARNESS, AND ALL WORK.

James Endsley, for draft, first premium, - - - - 3 00
Hiatt & Broaddus, for draft, - - - - - - Diploma.
D. B. Abrahams, saddle and harness, - - - - Diploma.
Joseph Druly, saddle and harness, - - - - Diploma.
James White, saddle and harness, - - - - - Diploma.
Bellfounder—D. B. Abraham's trotting mare, - - - Diploma.
Wm. Spinning, saddle, - - - - - - First premium.

TWO YEAR OLD COLTS.

Nicholas Hipes, first premium, - - - - - - 2 00
Jesse T. Williams, second premium and diploma, - - - 1 00

Jenny Lind—William Spinning, - - - - - - Diploma.
J. C. Dougan, - - - - - - Diploma.

SUCKING COLTS.

F. Hoover, first premium, - - - - - $3 00
Ferris & Hiatt, second premium and diploma, - - - - 1 00
Benjamin Hill, - - - - - - - - Diploma.
Vinnedge Russell, - - - - - - - Diploma.

MATCHED HORSES.

William Spinning, - - - - - First premium, and diploma.
Pleasant Johnson, - - - - - 2d premium, and diploma.

MULES.

Thomas C. Purl, first premium, - - - - - 3 00
E. S. Reed, foreign, - - - - - - Diploma.

JACKS.

Blue Jim—N. & L. Druley, first premium, - - - 5 00

HOGS.

Boars—James White, first premium, - - - - - 3 00
" Elihu Cox, second premium, - - - - 2 00
Sows—David Hale, first premium, - - - - - 3 00
" Reese Mendenhall, second premium, - - - 2 00

SHEEP.

H. Maxwell, best fine wool buck, premium, - - - - 3 00
William Feasle, second best fine wool buck, premium, - - 1 00
M. R. Hull, certificate of merit on 10 head of fine wool bucks.
J. Hammond, of Union co., for the best long wool Leicester buck, Diploma.
L. & N. Druley, for two ewes, Cotswell, - - - - Diploma.
L. G. Collins, of Clinton county, on 10 Saxony and French Merino lambs, - - - - - - - - - Certificate.

POULTRY.

J. Hallock, best pair Poland fowls, premium, - - - - 1 00
E. Cox, for Cochin China fowls, - - - - - - Diploma.

The premium was awarded to the Polands for their superior laying qualities, regarding them as most profitable. The Cochin China are preferred for table use.

FRUIT.

The only specimens offered were a fine selection of apples by John Ostey, premium - - - - - - - - $3 00

VEGETABLES.

S. S. Boyd, best assortment of garden vegetables, premium, - - 3 00
J. J. Conley, second best assortment garden vegetables, - Diploma.
S. G. Dugdale, best tomatoes, - - - - - Diploma.
S. G. Dugdale, onion setts, - - - - - - Diploma.
B. W. Hiatt, baking squashes, - - - - - Diploma.
A. & J. Vestal, best sweet potatoes, - - - - Diploma.

CARRIAGES AND FURNITURE.

S. R. Lippincott, best carriage, premium, - - - - - 5 00
J. D. Halleck, best buggy, - - - - - - - 5 00
A. Philips, best bedstead, - - - - - - Diploma.

LEATHER MANUFACTURES.

William L. Brady, best farm harness, premium, - - - 4 00
Wiggins & Sons, best farm bridle, - - - - - Diploma.
Wiggins & Sons, best buggy harness, premium, - - - 4 00
W. L. Brady, second best buggy harness, premium and diploma, - - 2 00
W. L. Brady, coach harness, - - - - - Diploma.
W. L. Brady, Somersett saddle, first premium, - - - 3 00
Wiggins & Sons, second best saddle, diploma and premium, - - 1 00
Wiggins & Sons, best riding bridle, - - - - Diploma.
G. W. Bowman, best boots, - - - - - Diploma.
G. W. Bowman, best shoes, premium, - - - - 2 00
Wiggins & Sons, best sole leather, - - - - - Diploma.
Joseph Beam, second best sole leather, - - - - Diploma.
Wiggins & Sons, best calf, upper, b. and h. l., - - Diploma.
Wiggins & Sons, best hard leather trunk, - - - - Diploma.

DAIRY.

Mrs. Mary D. Barker, best butter, first premium, - - - 2 00
Mrs. Sarah Stidham, second best butter, second premium, - 1 00
Mrs. Druley, - - - - - - - - Diploma.
Mrs. Copillar, - - - - - - - - do
Mrs. Mary Bulla, - - - - - - - - do
Mrs. Stuffee, - - - - - - - - - do
Mrs. Endsley, - - - - - - - - do
Mrs. Johnson, - - - - - - - - do

PLOWS FOR GENERAL PURPOSES.

S. Horny, jr., best plow for general purposes, first premium, - $3 00
Beard & Sinex, plow for general purposes, 2d premium, - 2 00
Beard & Sinex, left handed Empire Index for general purposes, Diploma.
Beard & Sinex, Empire No. 6, for general purposes, - - Diploma.
D. S. Horney, plow for general purposes, - - Diploma.

SOD PLOWS.

Beard & Sinex, 'Red Bird,' steel plow, first premium, - - 3 00
Beard & Sinex, Clipper, two horse steel plow, second premium, - 2 00

THREE HORSE PLOWS.

D. S. Horney, stubble plow, first premium, - - - 3 00
Beard & Sinex, Red Bird, (1st premium as sod plow) - - 3 00
do do do as stubble plow, - - Diploma.
do do left hand index, - - - - do

SUB-SOIL PLOW.

Beard & Sinex, steel sub-soil plow, first premium, - - 3 00

CORN PLOWS.

Beard & Sinex, corn plow, 1st premium, - - - 2 00

HARROWS.

Beard & Sinex, harrow, first premium, - - - - 2 00

CULTIVATORS.

Beard & Sinex, three shovel cultivators, first premium, - - 2 00

GRAIN DRILLS.

Beard, Sinex & Dennis Hagerman's Renovating Grain Drill, 1st prem. 4 00
R. Mayhew, Gatling's Drill, - - - - Diploma.

FANNING MILLS.

Z. Barton, Fanning mill, - - - - - Diploma.

RAKES.

Beard & Sinex, three hand rakes, - - - Diploma.

GRAIN CRADLES.

Sinex & Parks, grain cradle, diploma and first premium, - 1 00

CLOVER HULLER.

N. Newberry, clover huller, highly recommended, - - Diploma.

CORN SHELLER.

W. D. Wilson, corn sheller, first premium, - - - $2 00

CIDER MILL.

W. D. Wilson, cider mill, - - - - - Diploma.

THRESHING MACHINES.

A. Gaar & Co., first premium, - - - - 4 00
A. Gaar & Co., diploma and second premium, - - - 2 00
F. W. Robinson, - - - - - Diploma.

PLOWING MATCH.

B. Newby, best specimen of plowing, three horses abreast, not less than ten inches deep, with Beard & Sinex's plow, - 1st premium.
B. Newby, best specimen of plowing two horses abreast, not less than six inches deep, with Beard & Sinex's plow, - - - 1st premium.

GRAIN AND GRASS SCYTHES.

Beard & Sinex, best grain scythes, - - - - Diploma.
do do do grass scythes, - - - Diploma.
do do do brier scythes, - - - - Diploma.

FORKS.

Beard & Sinex, best general selection of forks, - - Diploma.

SNEATHES.

Beard and Sinex, best mowing sneathes, - - - Diploma.

REAPING MACHINES.

Saul Thomas McCormick's Reaper, - - - Diploma.

FLOUR.

Most and best flour from ten bushels of wheat, to Lynde and Sweeny, first premium, - - - - - - 3 00
W. Mitchell, - - - - - - Diploma.

DOMESTIC MANUFACTURES.

Best rag carpet—Mrs. Martha Ferguson, first premium,	$2 00
Best linen table cloth—Mrs. M. Conley, 1st premium,	2 00
Best bed quilts—Miss Maria Waters, 1st premium,	3 00
Best bed quilts—Mrs. Fryar, second premium and	Diploma.
Best stool cover—Mrs. Susanna Dugdale,	do
Best lamp mat—Mrs. W. L. Farquhar,	do
Best stand cover—Miss Sarah Roberts,	do
Best table spread—Miss Cox,	do
Best card basket—Miss Amanda Morris,	do
Best embroidery—Miss Sarah Wall,	do
Best soap—Mrs. D. P. Wiggins,	do
Best sugar—John Caty, first premium,	1 00
Best hat—Stephen Jones,	Diploma.
Best suit of clothes—W. L. Farquhar,	do

*** Note.—The committee on cattle report that they found it extremely difficult to determine the award of the first premium on bulls, and recommend both "Oregon" and "Osceola" as superior animals.

For a further notice of the Fair, I copy the following article from the Richmond Palladium:

The first annual Fair of the Agricultural Society of this County, was held at this place during the past week. It far exceeded the expectations of its projectors, and the most sanguine friends of the enterprise. The crowd in attendance was very large, and was estimated at from ten to fifteen thousand.

The Carriage exhibited by S. R. Lippincott, was gotten up in his best style; and for proportion, arrangement, beauty and smoothness of workmanship, cannot be excelled in the west. Its embellishments are rich, but not flamingly gaudy—sumptuous, but not superfluous. We are informed that his Excellency, Governor Wright, in the laudable desire to encourage the mechanics of his own State, and to foster a commendable ambition to excel, purchased this carriage for the use of his family.

The Buggy gotten up by J. D. Halleck, is a perfect bijou, and fully sustains, and even excels the high character of the

work done at his establishment. The style is the most modern, but in it good taste has not been sacrificed to fashion and inconvenience. In neatness, it is all the most fastidious could desire. In richness of material, and style of finishing, it is worthy the most refined taste. A neater and better job, we have never seen, East or West.

A Loom was exhibited by C. S. Mendenhall, which is very simple in its arrangements, and easy in its operations. The whole labor consists in pulling forward and returning the beam, by which the treadles are worked and the shuttle thrown. A child eight years old can work it as well as a grown person. We understand he has applied for a patent.

The Bran-Duster, patented by James S. Hughes, of this county, was exhibited in a small model, but entirely sufficient to test its superior merits for divesting bran of every particle of flour that may attach to it in ordinary bolting. It received a Diploma at the Ohio State Fair; and has been introduced in several of the best mills of Ohio and Indiana.

The Edge Tools submitted by Mr. Meek, of this place, were of superior finish and quality. With proper machinery, Mr. Meek would compete with eastern manufacturers. His make of axes is regarded by many persons who have used them as much better than Collins' best.

The Corn-Sheller, made and exhibited by W. D. Wilson, of the Richmond Foundery, is one the most efficient of this class of machines. The workmanship was good and run with light force. It will shell 25 bushels an hour, by the force of one person.

The Cider-Mill, put up and submitted by Mr. Wilson, is one of the most convenient things that can be had on a farm. It occupies a space of only about four feet square—can be easily removed from the fruit cellar to the orchard, or elsewhere, as convenience may require. It grinds and presses by the same power.

The Bee-Hive, exhibited by S. M. Cook, received a certificate of merit, and is regarded by those who have used it as

among the best of Hives. The one exhibited by S. Rollen, is thought by some as the perfection of Hives—the arrangement being such that the bees can continue to make honey the whole year, by having the material placed in their reach.

The CANDIES of M. C. Lewis and C. Zimmer, were said by the judges, (and they tested their qualities in the most positive manner, by eating something less than half a pound,) to be far superior to most of that article brought here from the cities.

The assortment of BRUSHES, made in this place, by D. & J. J. Wilson, and exhibited by W. P. Wilson, were far superior to most of those found in the stores. The hair brushes particularly deserve commendation. The backs and handles were made from native wood, and polished equal to the best foreign woods. They can furnish traders as well as the manufacturers further east.

The SHOE PEGS made and exhibited by Mr. Conley, of this place, are the article in perfection. This is a high character, but we are assured by those of the craft who know their value, that they cannot be beaten here or elsewhere.

The SHOWER BATH, exhibited by A. C. Dill, of Centreville, is the *ne plus ultra*, for its convenience, neatness and utility.

A premium was awarded to John Peterson, for a STONE FENCE, erected by him in the front of the residence of J. H. Hutton. The distinction was well deserved, not only for the quality of the material, but the style and manner of workmanship.

The PUMPS, introduced by Messrs. David Knowlenberg, Micama Wasson, and Joseph Dickinson, were all neatly gotten up, and either of them would meet the expectations of any person who wanted a good pump.

Mr. Jesse M. Hutton, submitted the plan of his dwelling house to the inspection of one of the committees, and was awarded a Diploma, for its general arrangement, convenience, and its relative cheapness for the same. We should be pleased to see a sketch of it published. Mr. Lewis Morris,

also presented a plan of his farm house, and was awarded a certificate. We have not examined either of these plans, but we were pleased to see the society disposed to encourage improvements in architecture, and particularly in farm houses, for in this there is a great deficiency.

A Hand-Spinning Machine, invented by Mrs. Margaret Hulings, of Randolph county, was exhibited. It is said by those who have examined it to be a great labor-saving machine, and that a person with the assistance of a boy or girl, can spin as much upon it in one day as they can on the common "big wheel" in four or five. It has 10 spindles, and is very simple in its construction. With it and Mendenhall's Loom, our farmers can manufacture within their house-hold all the clothing necessary for their use; and we shall come back to the "good old days" of home-spun wear.

Silas M. Fleming presented a fine rifle gun, of his own mannfacture. It was a neat specimen in the line of "shooting irons," but having some horror of the murderous things, we did not examine it closely.

John K. Boswell, made a fine exhibition of Daguerreotypes. They are a credit to him as an artist. Others were exhibited which were very creditable to those who got them up. We were particularly struck with one of the latter, being a likeness of our friend, Judge Test. It was true to the life.

The premium for the best rag carpet, was awarded to Mrs. Martha Ferguson. It is decidedly the neatest and best we have ever seen—made, we presume of new rags, and firmly woven. Other and very neat, and more expensive specimens were exhibited.

The committee on Domestic Manufactures, say the "*linen table cloth* presented by Mrs. Martha Conley, is a good specimen, and deserving of commendation." A premium of $2 00 was awarded for the same. The committee further say, "those of half cotton, presented by Mrs. Samuel Fryar, were very fine, and superior to any exhibited."

The same committee, in speaking of *Bed Quilts*, say, "we

were at quite a loss in judging of the superiority of the ladies work, and would respectfully suggest for the consideration of the Executive Committee, the propriety of, in future, appointing a committee of ladies, separately, or in with men, to judge of ladies' work. We made such an examination as the crowd of spectators would permit, and were of the opinion, that for beauty of vine and leaf, and neat arrangement of figure, the one presented by Miss Maria Waters was superior to the others; but if true merit consists in the superior stitch, and complete line of needlework, the one presented by Mrs. Samuel Fryar, was decidedly the best of any presented, and we would respectfully recommend that a premium be given to each—to the latter for superior needle-work, and to the other for the most complete arrangement of figure. There was also a white quilt, or quilted counterpane, presented by Mrs. C. C. Bundy, which we regard as decidedly superior to any of the kind offered, and in fact a most complete piece of workmanship, and worth a premium and a diploma."

The committee further say: "we examined the *Hat* submitted by Stephen Jones, and although none of the committee are hatters, yet they are of opinion that it is a substantial David Beard hat."

"We examined the suit of clothes exhibited by W. L. Farquhar, and pronounce them to be a complete piece of workmanship, and worthy of encouragement."

"The various specimens of Zephyr-work were examined, and the *stand-covers*, worked by Mrs. Susannah Dugdale, to be the best, and that by Mrs. W. L. Farquhar, as second. Those presented by Miss Sarah Roberts and Miss Cox, were very neat, and worthy of encouragement."

"The *Card Baskets*, made by Miss Amanda Morris and Miss Roberts were very neat. That made by the former superior."

"The maple sugar presented by John Catey, we mark as A. No. 1, and recommend the premium be awarded to him."

"We examined the embroidery made by Miss Sarah Wall, and pronounce it very good, not surpassed by any of the French embroidery brought to our town for sale, and respectfully recommend that the proper distinction be conferred upon it."

"We examined the *Domestic Soap*, presented by Mrs. D. P. Wiggins, and pronounce it decidedly worthy the commendation of the Executive committee, as we regard that the manufacture of this very useful article is entirely too much neglected by our country-women, if not by our citizens generally—consequently a large amount of money is sent from this county for the purchase of soap made in other places. The article exhibited is superior to the common box soap brought here in such quantities from Cincinnati."

The committee on *Dairy Products* report that they award the premium on Butter to Mrs. Mary D. Barker; the second premium was somewhat difficult to determine—the samples all being good and excellent butter. It was determined, however, to award the second premium to Mrs. Sarah Stidham, and a Diploma to Mrs. Druley. Also a Diploma to Mrs. Copilla, Mrs. Bulla, Mrs. Stuffee, Mrs. Ensley, and Mrs. Johnson. The committee bear testimony, cheerfully, to the general excellence of the samples of butter submitted to their examination, and would say that they have taken some pains to obtain information as to the process of making the article brought up for exhibition, and submit the following:

"The cream collected in four days, in earthen pans, on a ground floor, in a log milk-house—churned on Monday—worked over four times—salted to taste—the precise amount of salt not noticed—no coloring matter used. This is my usual method of making butter.

Martha D. Barker."

"Mrs. Stuffle takes the necessary quantity of salt, one-fourth as much salt-petre, and one-sixth of loaf-sugar."

The committee would also recommend that those contend-

ing for premiums on butter, at our next annual Fair, should put it up in pound cakes, nicely printed. We think it would be advantageous to the maker as well as the judges."

The above report was made by D. D. Sloan, John Stuffle, and Elihu Cox.

The millers who contended for the premium "for the most and best flour from ten bushels of wheat," were Messrs. Lynde and Sweeney, and Wm. Mitchell. The former ground 600 pounds of wheat in one hour and forty-five minutes, producing 522 pounds of flour—52¼ pounds to the bushel. Mr. Mitchell ground 720 pounds of Wabash and Red wheat, the flour of which weighed 576 pounds—the offal 143 pounds, making 719 pounds, losing one pound in the operation. The premium was awarded to Messrs. Lynde and Sweeney.

The *Farm Harness*, exhibited by W. L. Brady, and for which a premium was given, was said by those competent to form correct opinions, a very superior article. The *Buggy Harness*, submitted by Mr. Brady, was very beautifully gotten up, we thought difficult to be excelled, though the committee awarded the premium to D. P. Wiggins and Sons. Either of them were equal to anything we have ever seen, and flect much credit upon the skill of the workmen, by whom they were made, and to whom the credit should be given, more particularly than the proprietors of the shops.

The *Boots* exhibited by G. W. Bowman, of Cambridge City, were *fitted*, we believe the craft call it, in a style of workmanship, that cannot be excelled in this or any other country, so say those who know. An objection to them however, is, that they are too beautiful for the *understandings* of any *Sovereign* in Hoosierdom; and that is saying much.

An assortment of garden *Vegetables* were exhibited by Dr. S. S. Boyd, of Jacksonburgh, which were superior in quality and variety to any other exhibited. Among the lot was an excellent pumpkin of last year's growth, and now in good preservation.

The *Sweet Potatoes*, exhibited by Mr. Vestal, of Cambridge,

were very fine. He is the most extensive cultivator of this favorite esculent in this valley, and is the projector of a patented plan for preserving them through the winter. All who wish a superior article are referred to him.

The only *Fruit* exhibited, was a fine selection of fall and winter apples, by John Catey, of the vicinity of Williamsburg. Having been honored with the appointment of one of the judges on that article, we performed the duty with a good *relish*, and much pleasure, with the only exception that we had not a sufficient quantity to embrace the whole immense crowd in our committee. A premium of course was awarded Mr. Catey.

Quite a large number of *Sheep* were exhibited. The best, was the fine wool buck of Hugh Maxwell, for which he paid a few months since $100. Several other fine sheep were on the ground, but we have not room to particularize. We hope, however, to see this branch of the farming interest increased, which with proper laws by the general government, can be made of no secondary importance in this country.

The show of *Horses* was very respectable, but not so good as it should have been. An effort should be made to improve the stock. Our town is one of the greatest horse markets in the west, and a continual drain of good horses has made them more scarce than formerly.

Cattle.—The number of cattle at the exhibition was very large; and for quality, pure blood, beauty of form, &c., have not been excelled at any similar exhibition in the west. The premium for the best bull was awarded to "Oregon," after close examination, accurate measuring, and frequent comparisons. The competition was close, and we infer from the length of time occupied by the judges in coming to a conclusion as to the respective merits of "Oregon," and "Osceola," that they doubted, hesitated, and doubted again, as to which one the superiority should be awarded.

The competition in *Threshing Machines* was carried on with much interest and feeling. Messrs. Gaar & Co., of the

Spring Foundery, exhibited two machines—F. W. Robinson, two, Thomas A. Dugdale one, D. M. Cochran one, and J. Ensley one. Most of them were very fine specimens of workmanship, and in every particular were superior to the machines in general use. They all exhibited the powers of their threshers in a field adjoining the Fair grounds, and for the result the reader is referred to the list of premiums published in another column.

The exhibition of *Plows* and other agricultural implements was very large; and in plows and plowing, great competition was excited. In the manufacture of this article, our town cannot be excelled. The first premium on a plow for general purposes, was awarded, after a severe trial to Solomon Horney, Jr.—on the best stubble plow to D. S. Horney, and on the best sod plow to Beard & Sinex.

The premium for the best specimen of plowing was awarded to Benoni Newby. He also received a Diploma at the late Ohio State Fair, for his skill as a plowman.

REPORT FROM THE COMMITTEE ON FARMS.

To the President and Directors of the Wayne Co. Agricultural Society:

The undersigned, your committee on Farms, have attended to the duties assigned them; and make the following report:

It is our judgment, that Robert Murphey presents the best cultivated farm among the competitors. His mode of cultivation combines good taste, with utility; and remunerates well for his labor. His farm presents good evidence of industry, and well directed effort. His motto appears to be, "A place for all things, and all things in their places." We think him entitled to the first premium. There is hardly a weed to be seen on Robert Murphey's farm. His mode of

extermination, is to cut them twice a year, preventing them from going to seed. His fruit trees are truly beautiful. He informs us that he scrubs them well with soap suds, and the bark is as smooth as the skin of a fat baby.

James G. Scott, is entitled to the second premium. His farm is well cultivated, and in good order; and evinces skill, good taste, and an inventive mind; and doubtless pays him well for his effort. In fact his farm is a beautiful one—few weeds to be seen. His practice is to cut them before the seed matures. Many of the fields have the stumps all taken out. Farmers should call on him and get a model of his stump-puller, with which he can take out a stump as soon as a Dentist can a tooth.

Lewis Burk's farm, near Milton, presents a pleasing prospect, and is well worth a ride to look at; it is well arranged for stock, and the fine blue grass pastures are unsurpassed in the west. Nature and Art has done so much, that the situation seems enchanting; and we think him entitled to a Diploma.

D. P. WIGGINS,
D. COMMONS,
JOSEPH LEWIS,
} Committee.

REPORT OF THE COMMITTEE ON GRAIN AND GRASSES.

The undersigned committee on Grain and Grasses, respectfully report that they have given the matters assigned to them their attention; and award the first premium for the best product of corn from one acre, to Aaron Drellinger, of Franklin township, he having produced one hundred and thirty-five bushels per acre.

We also award to Daniel Clark, of Boston township, the second premium, he having raised one hundred and twenty-

five bushels per acre, and the field of near nine acres averaging over 115 bushels per acre.

We also append the following reports, handed us by the respective competitors, and especially commend to the attention of our agricultural friends the statements made by Daniel Clark.

We deem it proper to state, in regard to the cost of raising the corn by Daniel Clark, that the item of $18 75 for hauling manure, &c., should not be charged up as an annual expenditure, as at least a moiety of its value is still in the ground. In regard to rent of $40, it is much higher than common, because the field was adjoining the town, and consequently commanded a high rent. The average price for the same quantity and quality of ground in the county would not have been more than from $16 to $18.

There was no person forwarded to us a statement of wheat, barley, oats or flax, measured or accurately ascertained, what the yield per acre was. Two of the committee visited and requested several individuals to measure and give to the committee a statement of the yield per acre. John Clark's barley was good for fifty bushels per acre; and Daniel Shafer's, that or more; his flax was very good. So with William Feasel's flax and oats. No wheat exhibited at the Fair, except two small lots, by one of the committee—no one competing for the premium. On grass, two small samples of timothy seed, and one of perennial Ray grass seed.

On corn, there was six competitors: John Henley, James Fryer, John Stuffle, Aaron Drellinger, James Harris and Daniel Clark.

The following is a description of the manner in which the corn was cultivated, which I entered for the premium, at the first exhibition of the Wayne County Fair: I plowed my ground the first of April. The land is first bottom, and the

first crop. I plowed it about five inches deep; it was a Blue grass sod. I planted the corn the last week in April. I marked the ground one way three feet four inches apart, as near as I could, and drilled the other way about two feet; and averaged three stalks in a hill; cultivated it twice in a row; and plowed it at two different times, three furrows in a row.

AARON DRELLINGER.

I, Benjamin W. Elliott, do certify, that I helped to measure one-fourth of an acre of corn—an average fourth of an acre, and helped husk the same, and there was thirty-three and three-fourths bushels, on one-fourth of an acre, which would make one hundred and thirty-five bushels of corn per acre, of the above named corn.

BENJ. W. ELLIOTT.

October 11, 1851.

ON GRAIN.

To the Committee of the Wayne County Agricultural Society:

I herewith transmit to you the culture and proceeds of eight acres and eighty-eight roods of ground, on the farm of Charles W. Starr, adjoining Richmond, planted in corn the past season, by me. The soil is mostly a yellow loam; had been in corn the previous year; before that time it had been in grass three years; it was measured when first plowed for corn the crop before this.

On the 17th of April I commenced plowing with three plows, three days; plowed eight inches deep.

Cost of plowing	$18 00
19th. Rolled one day	2 00
19th. Harrowed two days	4 00

22d and 23d. Furrowed it for planting	4 50
Five hands, planting	5 00
One day rolling, after planting	2 00
May 17th. Commenced cultivating with 3 hands,	4 50
One hand replanting and uncovering	1 00
20th. Two hands half a day, cultivating	1 50
27th. Four plows one day	6 00
One hand replanting and uncovering	1 00
June 6th. Plows half a day	3 00
17th. Three days plowing	4 50
Three days harrowing the corn	3 00
18th. One day plowing, three days harrowing	4 50
July 2d and 3d. Four days plowing	6 00
Two days thinning and suckering	2 00
October 27th. Commenced gathering, finished on the 7th of Nov.; husked on the stalk; hauled one-half of it four miles—cost	25 00
Cost of seed corn	1 20
	$98 70
About three acres of the field had hauled on it forty-five loads of manure; cost of hauling and spreading	18 75
Cost on the part of tenant	$117 45

It will be seen that the tenant gathered all the corn in this case.

The above described field of corn was planted four feet between the hills; from three to five stalks in the hill; the kind of corn, large white Kentucky corn. We measured off one acre by surveyor's chains; gathered and measured one row by shelling it. The result proved to be a fraction over one hundred and twenty-five bushels to the acre. The corn was sound and dry.

The part of the field where the acre was selected was manured last spring; it was the upper side of the field, and

required the manure more than the remaining part. We found in gathering by the wagon load, but little difference in the yield; so I would be very safe in saying the field averaged 115 bushels per acre, which on the eight acres and eighty-eight roods, would be 987 bushels of sound corn, which at twenty-five cents per bushel, would be, $246 75

Cost of cultivation without the manure	$98 70	
Hauling manure and spreading	18 75	
Rent of land	40 00	
	$157 45	

The field is sown with rye ten bushels sowed on it for pasture; two bushels of timothy seed sown at the same time with the rye.

DANIEL CLARK.

James W. Fryar, plowed his ground about the first of April; first bottom, hard grass sod; plowed with three horses abreast, six inches deep; harrowed the ground twice; furrowed three feet one way, and drilled the other way about twenty inches apart; two and three stalks in a hill; planted about the first of May. The corn was cultivated two different times; plowed one time over. Seed corn consisted of two or three different kinds, mixed together. The amount raised on one acre, was one hundred and twenty-eight and a-half bushels. JAMES W. FRYAR.

James Harris, of Green township, is entitled to the premium of $5 for the best field of corn, containing five acres, which averaged 119 bushels and 2 quarts.

John Steffee—a certificate signed by S. S. Boyd, that 103 bushels was the yield per acre.

DANIEL L. DOWNING, *Chairman.*

SPEECH OF GOV. JOSEPH A. WRIGHT,

Delivered before the Wayne County Agricultural Fair, held at Richmond on Tuesday, Wednesday and Thursday, October 7th, 8th, and 9th, 1851.

Mr. President, and Gentlemen of the
Wayne County Agricultural Society:

The pursuits of my life have been as much varied as most men, yet in accepting your kind invitation to address you, I did not suppose that it was possible for me to enlighten the practical farmers and mechanics of the county of Wayne. Yet when I consider the efforts now making to excite our fellow citizens on the subject of labor, to arouse the laboring men of the State, the spirit of emulation that is being kindled everywhere, I could not do otherwise than by my presence contribute my mite to urge forward this movement.

My only regret is, that my time has been so occupied that I feel almost entirely unprepared to address so large and intelligent a portion of our fellow citizens. What is wanting in me, you have well remedied in the exhibition that surrounds us, of the labor, skill and production of the country.

What is national prosperity? A nation may have within its borders an abundance of the precious metals; it may have a world-wide commerce; it may have at its command a powerful army, and a navy second to none on the seas; within its territories arts, science, mechanics, agriculture and manufactures may be all carried to high degrees in the scale of perfection; its lakes rivers, canals, railroads and all its public highways may be thronged with busy men of enterprise, and the various productions of genius, skill and labor. But these evidences of national prosperity are not enough. Great Britain presents them all in a strong light before the world; and yet millions who compose the main body of the nation are laboring in her mines, her factories, her workshops and her fields; and the greater part of these millions are suffering under the evils of ignorance, servility, petty tyranny and unrequited toil; and in that condition, generation after generations of men struggle through a cheerless life of homeless and hopeless poverty. Hundreds of men thus live, labor and die in order that one unproducing Dives may be "clothed in purple and fine linen, and fare sumptuously every day." There may be prosperity among *classes* in monarchies and even despotisms; but true national prosperity, in its most enlarged sense, cannot exist under such forms of government.

The people of the United States have within their reach all the means necessary to enable them to establish for themselves the highest state of national prosperity. A spirit of freedom, equality, independence and self-reliance, is the inheritance of every citizen. The laws make no privileged classes. The roads to usefulness, to wealth and to honorable distinction are open

to all. Aided by the indispensable qualities of virtue, industry and knowledge, the farmer boy or the apprentice boy of to-day, may in a few years be the President of a republic stretching from the Atlantic to the Pacific, and holding the first rank among the nations of the earth.

National prosperity is the aggregate of individual happiness, caused by the distribution of the blessings of government under equal laws, by which each man receives the due reward of his own labor.

The true basis of all national prosperity will be found in an universal system of practical learning, by which the youth of the land shall be taught to understand and perform their political, civil and religious duties, as members of this confederacy. Among the youth of a nation he is not only the orphan who is left without father or mother; that youth, whose government neglects to provide means for his advancement in knowledge, is surely in the most desolate state of orphanage.

There is no one thing, after religion, virtue and knowledge, that contributes so much to the permanent prosperity of a nation as that which I call the *inventive talent*. It is this that has contributed much to the wealth, commercial importance and prosperity of England; and it is the same principle, operating in a field more free, that is now doing so much in our own republic.

We are behind no people on the face of the globe in mechanical genius and skill, and this is mainly to be attributed to our free institutions. With us, if a mechanic has a hundred hands at work in one shop, each man does not regard himself as a mere copying machine, compelled to follow without question the precise directions given to him by the master mechanic; but he *thinks* while at work, and he takes the liberty of making suggestions as to the propriety or expediency of changing this wheel or that cog. He does not feel himself to be a mere servant to do the bidding of his master; but he thinks, plans, reasons and suggests. Thus the powers of many minds are brought to bear on the investigation of every proposed improvement in mechanics or agriculture.

In this consists the secret of our success. You may go among the hundreds of mechanics who work in your machine shops, plough factories, &c., of Richmond, and you cannot distinguish the foreman or boss from the other laborers.

The success that attended the exhibition of American skill and labor at the great World's Fair at London, is well calculated to make an American proud of his country.

A friend of mine, in reading of those exhibitions and trials, made the following suggestion: He remarked that he was in favor of changing our favorite national song, "*Yankee doodle doo.*" The inquiry was made for the reason. His reply was, that we had *beat* John Bull in steaming and sailing—so much so, that the *Collins* line were now engaged in towing over the *Cunard* line; that we had defeated John Bull from Colt's Revolver to that great labor-saving machine of the day, McCormick's Reaper; that therefore we should no longer sing—"*Yankee doodle doo,*" but "*Yankee doodle did! Yankee doodle did!*"

It is very remarkable, that up to the present time, to a great extent, the

American farmer and mechanic have neglected to form associations. There is no class of men more interested in associations for mutual benefit. All other classes have their associations—religious, moral, mercantile, &c.

The mechanics have the advantage of the farmer in this, that they live in towns and cities—can exchange views and opinions freely together; farmers, separated in the cultivation of the soil, raising stock, &c., should have these exhibitions and associations, that they may meet and consult together with the mechanics for the common good, the effect of which is, that you stimulate industry, bring together the most distinguished mechanics of the State, who bring with them not only the work of their brain and hands, but they come together to inquire into the wants of the country, that they may return to their workshops to perfect the inventions that have been suggested by these means. The farmer thus makes himself well acquainted with what is new and useful, as well as witnessing for himself the productions of other portions of the country.

The advantages are so numerous that result to the agricultural and mechanical interest of the country, by bringing together periodically, at some point, the rarest and most valuable specimens of science and art, and especially the encouragement that is imparted to useful inventors of labor-saving implements of husbandry, &c., by endorsing the value of the implement, awarding premiums in money, diplomas, or medals, for such as may be of a highly meritorious character, that I cannot on this occasion more than merely name them.

In the first place you bring together men of different views and feelings on religion, politics and social progress. They are made to act together—the kindest feelings are thus produced in the great zeal and energy displayed to advance the interest and welfare of the State.

The grounds within this enclosure are dedicated to advance the arts, sciences, and the industrial progress of Indiana. You may walk around and mingle with this immense crowd of our fellow citizens, and you will not hear a word on the subject of politics or religion; but the great struggle is making, by each man, to outdo his neighbor in some branch of industry.

During the last month I have attended the State Fairs of New York and Ohio; at the two exhibitions more than a hundred thousand people were in attendance—an army greater than that with which Julius Cæsar conquered Gaul; but it was an army without bloody banners—a volunteer army, gathered together to celebrate the triumphs of peace. Their spoils were the richest treasures of nature, their trophies the mightiest mechanism of art, their triumphal chariots the steam cars that outstrip the wind, and their heralds the lightnings of Jove!

People of all classes, politicians of all parties, attended those exhibitions, almost without number; so intent were they upon the great purposes that brought them together, that I did not hear a single allusion to party politics.

The excitement attending these exhibitions of the skill and labor of the farmers and mechanics, is not the excitement that is to be found upon the race course, and on the election ground.

It is a matter of congratulation that all over the land, the farmers, mechan-

s and laborers, are waking up to so deep a sense of their claims upon public consideration; that they are cultivating so generally, not only the sentiments ut the habits of temperance and sobriety; that they are showing on every and, a strong determination to eschew, upon all proper occasions, the embit- ered strife of parties. The excitement of the present day, thank a kind Providence, is to see who can make two blades of grass grow where there was but one before.

One of the greatest blessings that is to follow from these exhibitions of labor and skill, is that of an entire change in the character of the education of the youth.

The time has been when the young men of the country were sent to the academy to take their places in the preparatory course, then to college, year after year spent in learning a little Latin or Greek, too frequently less common sense, until they become ready to graduate. With a rich colored diploma, he walks forth from the college, upon the very soil from which labor is to wring the bread that must support and keep him from starving, and yet in too many cases, wholly ignorant of the character of the soil, and of the very trees of the forest; so much so as not to be able to tell a maple from a beech tree.

This is not a mere sketch of fancy. I was credibly informed, that a few years ago, a graduate settled in one of our western towns, following one of the *learned professions*. Returning home he lost a shoe from his horse. He gathered up the handle of a skillet that had been broken off, to take to the blacksmith to make a new shoe.

You perceive the term learned professions has been used—one common with public speakers: It is to be found in the very forms prescribed by the General Government for taking the census.

By the census of 1850, there are about sixty-five thousand of the *learned professions*, out of a population of twenty-three millions. It is a term of reproach, and will remain so, until it is extended to include the farmer and mechanic.

The farmer, of all men, should be included in the term *learned profession. He is the great physician of nature.* If however, he is ignorant of the laws of nature, of the proper treatment to effect a cure when disease affects his patient, he is, of all men on earth, the greatest quack. There is this difference, however, between the quack farmer and quack physician: the farmer's patient has so good a constitution that it is difficult to kill him off. If his constitution was not good, in many cases in Indiana, the patient would long since have been dead and buried, and briers, thorns, and thistles, taken his place.

A case in point came under my own observation, which has numerous duplicates throughout the country. In passing by a neighbor's farm on the Wabash some years since, I found him laying the foundation upon which to build his stable and barn. It was situated on a high ridge, near the side immediately above a spring. When interrogated as to his object in thus building, his reply was, *that the manure would wash away from his stable.* The same day his son was hauling away the straw from where his wheat had been

threshed, to the head of a hollow, to use his own language, that when the water rose, it would wash the straw away.

This man never once thought that his rich land would wear out, or that he should have any use for manure. My remark to him was, if he lived in Yankee land, upon the poor hills of New Hampshire or Vermont, he would find at the next term of the Probate Court after his conduct was known, the town authorities had appointed a guardian to take charge of his interest. But the tide is turned, the age of practical education is dawning upon the country. We shall soon have taught, from the common schools to the highest institutions of the land, a practical knowledge of agriculture, mechanics, arts, chemistry, botany, geology, and all those sciences that are so intimately connected with the improvement of the soil, the animal and vegetable kingdoms.

We must teach our children to know the character of the soil, and its adaptation to the production of each article raised for man or beast—teach them to know the proper place for each article on the farm—how to build a comfortable house, with all the conveniences of life, as well as to teach him how to enjoy himself when he is thus situated. Teach him something of the beauty of nature, as it is exhibited, and the wonderful process that is going on every moment around him, and above all teach him the obligations that he owes to his creator, his fellow men, and to himself.

The greatest good that is to follow these exhibitions of the skill and labor of the country, will be that of making labor more attractive; we shall thus be able to change this thirst for professional life, that seizes so many of our young men—this aversion to manual labor. It has been justly said, that the two great leading objects of human pursuit, are agriculture and mechanism. In those are comprehended the wealth of the whole country. Each cultivator of the soil must be made thoroughly acquainted with the character and capabilities of his fields, and all classes familiar with the natural wealth with which the country is blessed.

We have too long regarded the representative alone, as the wise man, who devises the best system of finance to carry forward great enterprises, by borrowing millions. Suppose we change these stimulants of legislation, from that of capital to that of labor, and regard him as the wise man who devises a system that will make labor more attractive.

Let us say by our conduct, that he who will present, at your county and State Agricultural Fairs, the best model farm in Indiana, is as much entitled to office as the commander of a regiment in battle. He who will ascertain the cause of the potato rot, and provide the remedy, is as much entitled to the respect of his fellow men, as he who manages the finances of a bank successfully—that he, at least, does as much for his race and country.

The country will not be retrograding, when the highest office shall be given to the mechanic and manufacturer who shall make the best model mechanism, or the finest piece of cloth. Let the *plough*, the *loom* and the *anvil*, have their associations, conventions, shows and fairs. When they meet, you will have essays, discussions and experiments. In this way you will not only make

labor more attractive, learn the progress we are making in every department and pursuit in life, but will hasten the day when Indiana will not be distinguished for the goodness or security of her stocks, for she will have none in market, and will stand where she is justly entitled to, out of debt, and plenty to spare—the very first State in the Union in all that makes a people happy: *Light taxes, no debts, an economical government, a prosperous, agricultural, manufacturing and mechanical State.*

It is said that the press of the country is a good index to the people. If this be true, agriculture is in poor keeping, and at a low ebb. You will rarely pick up a paper in which will be found an article on agriculture or mechanics. If there is one occasionally from the Plow, Loom, and the Anvil, or other agricultural work, it is placed on the fourth page, in some obscure corner never designed to be read; while the leading editorial articles are filled with the prospects of this or that man for office, some circus puff, or the peculiar good qualities of some coffee house, or ice cream establishment.

Is it not strange, that the conductors of the press should for a moment suppose that it is more important for their readers to be advised of the prospects of this or that man for Governor or Congress, than to inform them of the improvements of the day in labor-saving machinery—the propriety of changing crops—the success of the flax movement, &c. &c. The fault is not with the editors alone. The people, the mass of our people are not sufficiently alive to their true interest; the proper spirit is not abroad in the land. Hold your county and State fairs—adopt a regular system of bringing together the labor and skill of the country—let the proper spirit of emulation be aroused among our people. Editors, like politicians, will soon partake of it; and you will soon see the leading editorials of every press in the land, giving their readers the full particulars of the premium farm in such a county or State, the improvements in some branch of industry or husbandry; and in some out of the way place a paragraph stating the probability that James Figgins, or lawyer Turney is talked about as a candidate for Representative. The effect of which will be, that the day of the election will pass by quietly, without excitement. The public mind will be alive to the day of the county or State fair, and every boy in the country will remember with interest the annual returns of these noble, stimulating festivals.

WET LANDS.

We have a vast body of wet, marshy lands in Indiana; the quantity is estimated by some to amount to at least three millions of acres. The subject of draining and ditching these lands is of great interest.

Those of us who have resided in the State for a third of a century, know how the early emigrants to the State avoided the wet, swampy and low lands, and settled upon the higher and drier portions of the country. Time, however, has demonstrated that this was a great error. The rich, valuable and durable lands are those that for years remained unsold, and were supposed to be wholly unfit for cultivation, on account of their wetness. I know a farm

of 160 acres that was sold five years ago for $500, that by the expenditure of less than $200 in draining and ditching, the present owner refuses now $3000.

In England, Scotland, and portions of our own country, various plans have been adopted in draining and ditching. They have, by recent improvements, diminished the expense, yet the depth of the ditch, and the character of their covering is such, that the expense is too much for our people. The cheapest plan with them is from $12 to $18 per acre. A very large proportion of our wet lands can be thoroughly drained by ditches say two feet in width by two in depth; a covering of oak timber taken from that part of the tree that is not suitable for rails, cut about 32 inches in length, placed inside at the bottom of the ditch, then extending about half way up the opposite side—the earth returned; the whole not costing more than 25 cents per rod. Or you may split your timber in greater lengths, place the same lengthwise, cover your ditch, and in either way they will last 15 or 20 years. By placing these ditches at suitable distances, all tending to a point where the water will flow off, you more than treble the value of your land.

The advantages of under-draining are numerous. They take away all the surplus water which exists in heavy soils. The ground is prepared early in the spring for the crop, furnishing a dry, warm soil, which, without the draining, could not be cultivated except in an advanced stage of the season. The soil is also more porous, therefore much more easily tilled.

It is known that rain water is charged with some of the most important elements of nutrition for plants, especially proportions of carbonic acid and ammonia. These should circulate through the soil. Air also holds vegetable food; soils which are full of water do not admit of any air.

The dense mass of wet saturated soil is impervious to air, remains cold and clammy.

By draining and ditching below the soil the warm invigorating rains penetrate the entire mass, and there diffuse the genial temperature through the roots. The warm air rushes in and supplies its portion of augmented heat to the land. Thus porous soils readily imbibe heat, and just as readily part with it.

These are some of the reasons assigned for under-draining. Those who have tried the experiment know the great advantages that result from it.

I have a neighbor who informed me that in 1850, a very dry season, he had ditched a field that he had previously put in corn; in the low and wet parts of the field he usually gathered in the fall a few nubbins, but went to the high ground for his crop. In the fall of last year he obtained his good corn from the low land, his poor from the high; the extra crop of the year paid for the whole expense of ditching and draining.

SPRING DRAINING.

We have in various parts of the country springs that are discovered, not by a free discharge of water, but they are found in large extensive plains of wet, marshy, boggy lands. In this condition their greatest practical use is

to mire stock. Near them is sometimes gathered a small quantity of inferior bog-hay; while in the neighborhood is too frequently seen the pale face and countenance, demonstrating that disease and death have found the proper locality to do their work.

These springs should be immediately traced to their source, the very highest point where the ground is moistened, and led off by a drain to the nearest ravine, of sufficient depth and width to prevent the escape of the water into the adjacent soil, unless it should be needed for irrigation, which is seldom required with us.

NEW ROAD.

I should like to see the experiment tried, of making a perfect *earth road*, without metal or plank. Dig your ditches, say seventeen feet apart, cover them over, throw up the ground in the centre, let the water from the ditches be taken to the lowest point. In place of making a culvert and bridge, use the rock for making a solid bed for the water to run over, across the road, called a valley, that droves of cattle and the stock of the country may use, and your wagons and carriages may be cleaned thereby.

I have great confidence, that in a large proportion of our country, roads may be made, for less than one half what our plank roads cost, more durable, and far preferable.

WOOL.

We are greatly deficient in sheep in Indiana. According to the census of 1850, we have but about a million in the State. Great Britain has more than forty-five millions, which average 3¾ lbs. of wool to each sheep.

If you were offered to-day a proposition for a permanent investment, which you were satisfied would realize forty per cent. upon every dollar invested, the whole community would invest their money in the enterprise.

It is susceptible of the clearest demonstration, that every dollar invested in sheep, would yield more than forty per cent. annually. No article (the cow excepted) will come so near to paying annually for their cost, as the sheep.

The annual fleece, at present prices, will pay first cost; their increase will pay the cost of keeping them.

We have every variety of soil—the hilly land, the broken land, the prairie, the level plain. A very large portion of our State is admirably adapted to the raising of sheep, which is not used for any other purpose. All that the farmer has to do is to clear up his farm, leave the live timber standing, and, whether level or broken, fence it in, sow it down in grass and turn in his sheep.

The annual deficiency of wool in this country is estimated at seventy millions of pounds; when to this we add the increased demand for the article, will annually require the wool of at least three millions of sheep—there is no fear of over-supply.

It is strange that our people cannot supply the demand for wool among us. In England, the annual rent of ground per acre is almost equal to the cost of the average improved land with us, yet the rent is paid, the wool raised, shipped and sold abroad.

You have upon this ground, exhibited to-day, a French sheep that the owner (of Clinton county, Ohio,) assures me turned off last spring twenty lbs. of wool—that he sold for 37½ cents per lb., making $7.50. A wool buyer informed me, that in Warren county in this State, he purchased a fleece that weighed eighteen pounds. We can, in my opinion, raise wool in this State, as cheap as in any part of the western States. My advice to farmers, would be to engage in raising sheep.

FLAX SEED OIL.

We are neglecting, too much, the cultivation of the flax. The amount of flax seed oil imported into the United States, for the year previous to the 30th of June, 1850, was 1,573,177 gallons—equal to 698,000 bushels of flax seed, which is at its present eastern price $1,548,000, a sum equal to one-fourth of all the flour exported from the United States during the same period. The crop therefore must be increased more than a million of bushels before the home demand can be supplied.

In some parts of the country, flax is raised and cut for the seed alone, the ground the same season put in wheat.

You may take the present price of flax seed, make an estimate of the cost of preparing it for market, and no article can be raised that is more profitable.

In conversing with one of our best farmers on the subject, he informed me that an acre of flax will yield twelve bushels; the cost of raising, preparing, and taking to market, he estimates at about $8—the price at $1.25 per bushel, will make $15—leaving a profit of $7 per acre.

But in this calculation, no account is taken of the flax. I have now before me a specimen of the flax cotton, samples of cloth made of all flax, likewise part wool and flax, and part cotton and flax. I do not consider myself competent to decide whether this movement in the flax cotton will succeed; but if the Yankee fails in this movement, to make it successful, it will be the first.

In conversing with a gentleman on the subject of the cheese trade in Indiana, I was astonished to learn that we purchased annually about eighty thousand dollars worth of what is called Western Reserve cheese. The amount purchased in two years would build a McAdamized or plank road across your State. A very large proportion of this cheese is an inferior article that would not be brought to the table where it is made. No country is better adapted to the dairy than Indiana, with the variety of hill, dale, and valley, springs, wells, running brooks, branches and streams, of all sizes. It is a wonder that our people do not turn their attention more to this subject.

LAND-HOLDERS, GOVERNMENT LANDS, FAIRS, &c.

The tillers of the soil, while they are making efforts to advance the agricultural interest to its highest state of perfection and usefulness, ought to remember that much will be required of those to whom much is given. Let us not forget that in the United States, with our vast extent of territory, our variety of soils and climates, and our popular republican form of government, we possess, to aid us in our progress, advantages for improvement far above all other nations of the world. In some foreign countries a miserable kind of agriculture has been carried on for ages, by people living in ignorance and indigence, on lands to which they never had any settled right of possession: and under the most free and enlightened governments, the great mass of practical farmers are tenants at will, or on short leases, bound by covenants with their landlords to pursue a certain mode of cultivation.

It is our true policy to have settled the vast domains of wild land. The great law writer of the past century expressed a noble sentiment when he exclaimed—"That a freehold *was the possession of the soil by a freeman.*"

The sooner our lands are reduced to possession and cultivated by actual settlers, the sooner you make citizens interested in all the institutions that surround them. Why not open the entire vacant lands of the Union to actual settlers? and whenever proof is made that the settler has made improvements to the value of the land at its present price, that the government shall be bound to make him a patent therefor, without money and without price. In this way you do not obtain money from the settler to fill the coffers of the nation, but you do what is preferable, you hold out inducements for the laboring man to obtain a home for himself and family. You add to the true wealth of the country a far greater amount of all that is valuable and permanent, in making a prosperous and happy people.

With us, with few exceptions, the agriculturist, protected by equal laws, holds his land in his own right, and cultivates it according to the dictates of his own judgment. He is one of the most numerous class of citizens whose prosperity is inseparably connected with the prosperity of the country. They are the life-blood of the nation; and when acting in a healthy condition, they promote the strength and virtue of the government, and impart life, energy and prosperity to manufactures, mechanics, commerce, arts, science, and every other valuable interest of the body politic. Their prosperity lies at the foundation of every species of industry.

When we, as a people, shall exhibit a well ordered system of agriculture, with county, State, and National Fairs, bringing together different portions of the laboring men of the country—I say when we shall do this, we will learn that in this consists the strongest bond to regulate society, the sure basis of peace, the best guaranty against sectional strife and divisions, the national associations of good morals, peace and harmony in each neighborhood and section of the confederacy.

There will be exerted by these county, State and National Fairs, a most

healthy and conservative spirit. They should be voluntary associations, not connected with any department of government. You will bring together upon the same platform, the citizens of the several States. There were at the great Empire State Fair at Rochester, New York, citizens from all the States except three. The South Carolinian and the Vermonter were there; the Georgian and the Ohioan. It was a very interesting sight to witness the southern man examining the machine of the Vermonter for splitting shoe pegs, and in turn the Vermonter giving his decided opinion upon the propriety of an improvement upon the machine for hulling cotton seed.

By bringing together, in this way, the people of the north and south, we shall soon be able to forget those anti-American phrases, *Northern* and *Southern rights*, and will call them by that purer and higher term, *American rights*.

We have had excitements in this country, from time to time, on various subjects. The present excitement upon the subject of labor that is now beginning to agitate the country, cannot possibly do any harm, but much good. It is to be most ardently desired, that it will take the place of that sectional excitement, which has been felt, more or less, all over the land.

The people of the nation want peace, and they are determinad to have it. No man will be sustained that favors agitation. Throughout our own happy State there is but one sentiment among the mass of the people; that is to faithfully abide by the bond of our Union, the Constitution; abide by the compromises, and to write upon the very lintels of our doors the sentiment: That the first act of public disobedience to law is the first fatal step taken in the downward road to Anarchy! These are the sentiments of the mass of the people west, yet there are men in the south and in the north, who go to bed *simmering*, rise up in the morning *boiling* with rage and long yarns about southern and northern rights—southern and northern injustice, and who almost name their children southern and northern. My opinion is that if these men would devote a portion of their time and attention to the development of northern and southern resources, to the elevation of the labor of their respective countries, they would soon have southern and northern rights that would maintain themselves.

There is a State of this Union, almost the mother of States, one of the glorious thirteen, not three hundred miles from our own happy State, if the people of which, half a century or more ago, had turned their attention more to the improvement of her soil, to the diversifying her labor, to the proper method of preserving her fields—dealt less in abstract theories, she would not have, at this time, so much waste and unproductive land. She is, however, now turning her attention in the proper direction—to the true source of wealth—the development of her resources. In various parts of the old dominion is seen the Yankee with his clover fields, his patent rights; following this the agricultural fairs, exciting the proper spirit of emulation among her people. The husband works, the children and the wife labor; and soon will be changed the face of the country.

As rich as we suppose our soil to be, productive as it is, we should remember that our true policy is to adopt the system that *will preserve it*. If we neg-

lect the lights of the present day, if we shall refuse to be governed by the present improvements, and shall continue to push our rich soil without system, we shall likewise soon have barren and waste fields.

Gentlemen of the Wayne County Agricultural Society, an apology is due, for the very desultory manner in which I have addressed you. Being my first visit to this part of the State, my object was to see and examine for myself, the labor, industry and skill of your people. Your exhibition to-day, in many things, is equal to some of the State Fairs. Who could have expected such an array of mechanical skill and labor, from mechanics that haul their coal, coke, iron, and steel, sixty miles by land carriage; yet you are successfully competing with your sister cities and States, who are more favorably situated. Your success shows what skill, industry, and energy will do among our people. The articles of grain, stock, carriages, wagons, threshing machines and other farming implements, are equal to anything that can be exhibited in this valley. You, yourselves, had no idea of what was in your county until you witnessed this extensive collection now before us.

You are demonstrating the doctrine laid down by Mr. Jefferson—the great benefits of placing the manufacturer and consumer side by side. This is the true doctrine. To accomplish this in Indiana we want two things, *capital and labor*. These we shall have, whenever the great elements of our wealth are known abroad. We want—must have, a full, perfect, and practical geographical and topographical survey of the State, that the elements of our wealth shall be known and read by all men, our coal, iron, salt, timber, soil, marble, stone-quarries, water power, &c.

To this we should add a bureau of statistics, that the present condition of our growing State, and its advancement from year to year, should be officially known and published, in all things.

There is less known abroad, this day, of Indiana, in her great elements of wealth, than any other State in the Union of her age and position.

I have no doubt that the surplus of Indiana this year, in the leading articles of pork, wheat, corn, cattle, and grass, is not less than $25,000,000.

I trust the time will soon come, when the labor of the State, in agriculture, manufactures, mechanics, her full history in detail, debts created or paid, the number of children attending school and not in attendance, a full practical annual statistical report of the whole State will be made a permanent part of our domestic policy.

At the regular annual meeting of the Wayne County Agricultural Society, held at Centreville, on Saturday, November 1st, 1851; President in the Chair. The Secretary made the following report of the final operations of the past year:

Whole amount of receipts from all sources.....		$953 35
Amount of premiums awarded.....	$282 00	
Paid for rent of ground and enclosing..	128 13	
Paid for police, gate-keeper, and clerk.	52 25	
Paid for printing large bills.....	21 50	
Paid Holloway & Davis for printing..	15 00	
Sundry expenses, including digging well, labor and hauling.....	67 32	
Paid for lumber, now on hand.....	28 84	
		595 31
Balance in treasury.....		$358 04

The report was ordered to be accepted, and placed on file.

On motion of Lewis Burk, Esq., the Secretary was ordered to sell the lumber belonging to the society.

A committee consisting of one from each township, was then appointed to report suitable names for officers of the Society the ensuing year. The committee made the following report which was unanimously accepted:

D. P. Holloway, President.

Norris Jones, } Vice Presidents.
Col. J. P. Doughty, }

Joshua Ellason, Treasurer.

Thomas G. Noble, } Secretaries.
W. T. Dennis, }

Board of Managers.

Elias Ogan, of Franklin township.
Nicholas Smith, of Abington township.
Levi Druly, of Boston township.
David Commons, of Centre township.

Joseph Davis, of Clay township.
Charles Burrows, of Dalton township.
Horton Furguson, of Washington township.
Samuel Boyd, of Harrison township.
Joseph Harris, of Green township.
John Whippo, of Jackson township.
Andrus Wiggins, of Jefferson township.
John Meredith, of New Garden township.
John Osborn, of Perry township.
Daniel Downing, of Wayne township.

On motion of D. P. Holloway, it was

Resolved, That the General Assembly of the State of Indiaana, are hereby earnestly requested to pass a law to prohibit the running at large of *male* scrub stock, of every description, under a penalty to be sued for, and paid into the common school fund.

Resolved, That the General Assembly be earnestly requested to pass a law, imposing a tax of fifty cents, annually, on each and every dog owned, or harbored; and also to make the owner of any dog found worrying or killing sheep, liable for all damage occasioned thereby.

The second annual Fair will be held at Centreville, at such time in the fall of 1852, as may be ordered by the Board of Managers.

DANIEL CLARK, *President.*

W. T. Dennis, *Secretary.*

It may not be uninteresting to those who are engaged in the organization of county societies, and making the preliminary arrangements for holding fairs, to know how the fair in this county was conducted. At the organization of the society, but thirty dollars were paid in by persons becoming members. But little effort was subsequently made to obtain

members, and the Executive Committee determined for the purpose of raising the necessary funds to pay the premiums, and defray the expenses incident to holding the fair, to enclose the fair grounds with a close fence, and charge a fee for the admission of persons within the enclosure. The admittance fee was fixed at 15 cents for a single individual—25 cents for a man and his family, (including all children under 18 years of age,) for one day. One dollar for the three days, admitting the family (with the above restrictions,) and which also permitted the person to enter whatever he deemed proper for exhibition and competition. About three hundred tickets were sold for one dollar, constituting such person a member. Their names were recorded, and are regarded as members of the society; but at the next fair will not be entitled to the rights of members unless they purchase a ticket. Until that time however, they are entitled to vote in all meetings of the society.

Two acres of ground was enclosed, with a board fence, seven feet high; in the construction of which, two pieces of studding, nine feet long, were inserted in the ground, leaving a space between them equal to the thickness of the boards used. These double posts were set at a distance from each other, half the length of the boards, and were fastened at the top by being wrapped with wire to prevent their separating. The boards were placed edgewise on the top of each other, breaking the joints alternately at each double post. The boards of course were precisely the same length, when used together. No nails were used whatever, and the boards was in nowise injured by the use made of them. We paid eighty dollars to the keeper of a lumber yard to put up the fence, for the use of his lumber, and the taking of the same away, leaving the ground precisely as he found it. Lumber for such an enclosure might be purchased, and used in this way and sold again for but a small discount on its original cost. Sheds were also erected for the exhibition of smaller articles—pews and stalls for small stock, and racks for horses

and cattle. We received twenty-five dollars for the privilege of selling refreshments within the enclosure, which defrayed the actual cash expenses of erecting the sheds.

A large well was dug within the enclosure to obtain water for stock, and other purposes, and which also enabled several pump makers to exhibit specimens of their work.

On the second and principal day of the fair, more than five hundred dollars was received at the ticket office.

We respectfully commend this manner of enclosing fair grounds to the attention of our friends who contemplate holding fairs hereafter. It excites a prominent and very general feature of the human character—curiosity, a desire to see what is hidden by the fence, and many will contribute from this feeling, who would not contribute in any other way. The grounds are also more particularly under the police arrangements for maintaining good order, and the property left on the ground during the night, with many other advantages that will present themselves to all desirous of preserving good order.

In compliance with the request of the State Board made through a Circular received, I beg leave to submit the following, imperfect replies to the questions propounded therein:

Wheat.—The agriculturists of this county generally prefer the White-chaff bearded wheat. It is considered more free from rust; ripens earlier, and has a firmer straw. It stands the winter as well as any other, and is held in high estimation by the millers. There is another kind cultivated to some extent, called the Wabash white smooth chaff. It is a week later in ripening, and therefore more subject to be injured by the rust; but is less injured by the fly, which is said to be owing to the peculiar formation of the blade—that part which connects with the stem. This wheat produces

as white flour, and has a thinner skin than the White bearded—gives a better yield, and commands a few cents more than ordinary prices for other varieties. There is besides another kind of wheat recently introduced into this county, called the Blue Stem, which so far speaks well for extensive culture. It has eight rows of full grain, producing from fifty to sixty grains on a stalk, and is said to ripen as early as the White-chaff bearded. Its qualities not being fully tested, we omit further notice for the present.

One of the many modes of preparing the ground for seeding with wheat, is to break up the fallow or stubble early after harvest, and harrow lengthwise with the furrows—then haul barn-yard manure and spread even over the surface; plow a second time about two-thirds the depth as before, taking wide furrows so as to leave the ground in niches formed by the plow some three inches deep; sow the seed and harrow length-wise the furrows. This method covers the grain deep and somewhat similar to drilled wheat. It comes up and grows more vigorously, and stands the winter better than when sown upon an evenly harrowed surface, which is apt to leave one-fourth of the grains to perish for the want of depth of covering. The only preparation given to seed is cleansing it of cheat, &c. The general time of seeding is from the 10th to the last of September. The Wabash as early as tho 10th. The quantity of seed used per acre is about one and a-half bushels. The average yield for a series of five years, in this county, is about fifteen bushels per acre. The time of harvesting, is from the 26th day of June to the 6th of July. The wheat when cradled or reaped, (which has heretofore been generally practised) is put up in shocks. The shocks are permitted to remain in the field for ten days or two weeks, if designed to be placed in the barn or stack. If threshed in the field, then it remains often three or four weeks, awaiting the convenience of the thresher. Seven-eighths of all the wheat grown is bought up and floured in the county. Fifty cents per bushel may be set down as the

average price for wheat during the present year. We know of no remedy for the Hessian fly or for the weevil. Neither of them have been prevalent in this county.

It is estimated that the surplus crop of wheat of the county, this year, is 128,000 bushels, which surplus at fifty cents per bushel amounts to $64,000. Supposing there are 7,000 families in the county, and that each family consumes thirty bushels, making 210,000; 25,000 acres sown with wheat, one and a-half bushels per acre, making 37,000 bushels used for seed. These several sums added make the entire wheat crop of the county this year, 375,000 bushels.

Corn.—There are several kinds of corn grown that yield and ripen well, which have no particular names. There is however, in quite general cultivation, a large yellow, with sixteen rows of grains, which turns off more bushels to the acre than any with which I am conversant. Of this kind there has been grown on one acre, one hundred and twenty-five bushels, and the field of eight acres averaging one hundred and fifteen bushels per acre. Again we have the White Kentucky corn, which *it is said* is still more prolific, than that above referred to. The best farmers prepare their ground for corn, by plowing deep, early in the spring, roll to break the clods, harrow lengthwise the furrows, haul out manure and spread evenly, harrow again, if sod ground, mark out four feet each way, drop four grains in a hill, and cover with hoe from two to three inches deep. They plant from the 25th of April to the 12th of May, as the season permits. The corn is worked first with the cultivator each way, then plow from the hill, and the reverse, and lastly with the cultivator or small harrow, leaving the ground loose. Thin out and pull off the suckers whenever necessary. We leave not more than three stocks in a hill, and replant to secure that number. The average crop of corn for the whole county this year, is about forty-five bushels per acre. The average cost of raising and cribbing is fifteen cents per bushel. Three-fourths of the entire crop is fed in the year to hogs

and other stock. One-eighth ground is for family use, and feeding cows, &c. One-eighth perhaps is sent off by the canal to the Cincinnati market.

Where the land is rich, to plant with a drill, the rows turning north and south, is considered preferable to planting in hills; simply, because each root and stalk is isolated and not crowded in the hill, the roots have more room to spread, and each stalk produces more generally full grown corn. In ordinary seasons, the plow and cultivator is not used after the 10th of July.

Oats.—Two bushels are generally sown on one acre. The average yield is about thirty bushels per acre. The general price in our market this year, is about sixteen cents per bushel.

Rye.—About fifteen bushels per acre is the average product of rye, and the market price about fifty cents per bushel.

Barley.—The general product of barley is about thirty bushels per acre, and the general price sixty cents per bushel. From this statement, barley certainly is much the more profitable crop, while the land is not so much impoverished in producing it, as it is, by either oats or rye. Wheat succeeds the barley crop better than any other. There is yet no grain cultivated in the county, that when ground and fed to milk cows can compete with it in producing butter, either for richness or quantity. Spring barley produces from twenty-five to forty bushels, while that sown in the fall yields from forty to fifty bushels per acre. Sow in the fall, about the middle of September, or in the spring as early as the weather permits. Grass succeeds well, when put in with barley.

Grass.—Timothy is esteemed the highest and is generally sown. Blue grass is preferred for pasture. Herd, is much used in low moist lands. Clover is not cultivated as generally as it should be, for it is valuable as a fertilizer, setting aside other purposes for which it is no mean crop; for instance, to be fed to sheep and colts. The quantity sown on

an acre, of timothy is from four to six quarts; blue and herd grass, three quarts, and clover four quarts.

The product of one acre of upland meadow, will average of hay, from the mow, one and a-half tons, and that of the low moist soil, two and a-half tons. The cost of production per ton, for upland, say in meadow for the period of five years, will be as follows: for cutting, 50 cents; making, 30 cents; hauling to barn and mowing, 40 cents; in all, $1 20: and for low lands the cost is about 60 cents for cutting; 40 cents for making; for hauling &c., 40 cents; in all, $1 40. Place of market, within the county for almost the entire crop. A small amount has been sent down the canal to a southern market. The price it commands this season will average $6 per ton from the mow. The method of renewing the meadows is, to run a sharp toothed harrow over it early in the spring, twice, the last time at right angles with the first harrowing, and if needed, sow it again with a small quantity of seed; then roll it to smooth the surface. Manure is generally spread on the grass roots late in the fall, thinly, so as not to smother the plants. Upland meadows generally, do not require the harrowing process. When the best qualities of grass run out, it is better to change the cultivation.

The Parennial Ray grass has been cultivated to a small extent lately, and promises fair for more extensive culture. It is worthy of a trial. The hay is tolerably good, and stock of all kinds are fond of it. It is of quick growth, and will do to mow as soon as clover; the second crop is fine. Another species called Italian Ray grass, is spoken of as better than the former, on account of its larger yield. The only specimen we know of in this county was received in seed from the patent office at Washington.

Dairy.—The average yield of butter per cow, in this county, is believed to be about 100 pounds, and that of cheese, 200 pounds. The comparative cost of the two, I have no data to guide me; but from the general knowledge

received upon the subject, I would suppose that cheese making would cost one-third more than that of butter. This increase of cost lies in the necessary care after taking from the press, in buttering, turning, rubbing, &c. Assuming then that cheese costs, ready for market, one-third more than butter, and that the former article is produced in double quantity to the latter, the cheese account has the preference, *provided*, the relative prices of the two favors it. The average price of butter at home, for the past year, is 12 cents, and that of cheese, 8 cents. One hundred pounds of butter made from one cow is worth $12, and two hundred pounds of cheese, product of the same cow is worth $16. We will assume that the cost of making the butter to be $9; add one-third for making cheese, which would make its cost $12. This shows, there would be $3 profit on butter made from one cow, and $4 on that of cheese. This I apprehend is near the true state of the case. For the absence of data, I am not prepared to give the information sought under this head, though very desirable. Farmers have not kept accounts of their operations in these matters; but by another year, much fuller information, no doubt can be obtained. Cheese-making is extensively carried on in northern Ohio, and proves to be a money making business. Like all other operations in manufacturing, the more extended the business, prudently managed, the greater the profits. Experience is capital, and studious application is thrift. The article of cheese can as well be made in this State as elsewhere, and it is hoped will receive the attention of our agricultural communities.

Neat Cattle.—The average cost of raising neat cattle per head, in this county, until three years old, is about $15; common treatment. The usual price at that age, not fatted, is about the same as the cost of raising. This calculation is based upon common stock. We have not here the wild range for cattle found in the less densely populated counties, hence we fall behind them in raising common stock cattle. If this stock were improved by crosses with Durham stock,

it would enhance their value, even for beef, one-third, and at the same time cost no more to rear them. This is the only way cattle raising can be made profitable under the present state of things. The price of *good* common stock cows, is from $20 to $25.

Much interest however, has recently been excited among the farmers of this county to improve their stock of cattle, and in some portions of the county, their stock, has for some years, been far superior to that of other portions of the county. Large importations of improved stock have been brought into the county from Ohio and Kentucky during the past year, and a general improvement is already perceptible throughout the county. Messrs. Morrow and Co., of this county, have recently purchased a bull, from an importer in New York, for which they have paid $750.

Sheep and Wool.—We believe it has been ascertained by testing the relative advantages of coarse and fine wooled sheep, that a medium quality is the most profitable; say an equal mixture of the Merino and our coarse wooled kind. The former furnishes finer mutton and fleece—the latter suits the general demand of the county in the way of clothing. being of a texture, that when manufactured into cloth, satinetts, flannels, &c., is both neat and durable. There is but little difference in the demand or in the price of half and full blooded, either as respects the carcass or fleece. Again, a medium seems to be desirable in regard to rearing the animal. The coarse wooled sheep cost less in raising and require less attention, being more hardy; yet they grow less wool, but more meat, being larger; while the fine full blooded Merinos require greater attention from being more delicate, but furnish more wool.

A healthy coarse wooled sheep, upon average, will produce two and a-half pounds of washed wool, worth this season upon an average, thirty-three cents per pound. The finest blood produces three and a-half pounds, upon an average worth thirty-eight cents per pound. Without having any

definite data as to the cost of raising; the liabilities to disease &c., I can only express the opinion founded upon general observation, that the average profit of raising sheep in this county is from twenty to twenty-five per cent.

Hogs.—Berkshires, crossed with Irish Grasiers, has proved to be the most profitable hogs raised in this county. The first impart fineness of quality, and the latter capacity as to size, &c. We think it would be a fair calculation to estimate the number of hogs, fatted in this county, this year and sold, at 10,000. They brought, upon an average $8 per head, making $80,000, which accrues to the county from foreign sources.

Hemp.—This article is cultivated to but a very small extent in this county; though the soil and climate is admirably adapted to its culture. Flax has taken its place in the article of *Lint*, which farmers generally use to form the woof in the article of linsey, table cloths, towels and grain sacks. Flax, however, is mainly raised for the seed, which this year commands $1 per bushel. The average crop is ten bushels per acre.

Potatoes.—The most profitable varieties of potatoes are the Pink-eyes and Mercers. The former has been much cultivated within the last few years, and is preferred to the latter, on account of not being so much subject to the rot. The yield of these two kinds is about equal. The Mercer is as good a potatoe for the table as ever introduced into the county. The Shaker Blue is also a very good variety; so is the large early White. The Kidney and Cow-horn potatoes are cultivated to some extent and highly esteemed. The long red hog potatoe is esteemed mainly for its great yield; they improve in quality by age.

Break up the ground deep, harrow, lay off furrows three feet each way, plant three potatoes uncut, and of medium size; apply one shovel full of manure, cover from three to four inches deep, plow and hoe once, pull up the large weeds, and when this is done, if the season is favorable, the average

yield will be 300 bushels per acre. The average market price at home is twenty-five cents per bushel. I have found the wood pile manure of all others the most congenial for the potatoe. A farmer could not be better employed in potatoe planting season, than in scraping together this kind of manure from his wood-house, or wood-yard, and applying one-half peck to the hill. The potatoe is not near so liable to the *rot* as when manured from long barn-yard material, which undergoes the heating process, after the potatoe is planted, and moreover the action of the sun and moisture hasten the decay of the plant while in full growing condition. And whatever may be the incipient or remote cause of this disease, potatoe rot, excessive heat and moisture are proximate causes. The truth of this was exemplified last season. The plant was arrested in its growth on the last of June, in many places, by this disease, and from appearance the whole crop was about to fall a sacrifice to this enemy. But upon the sudden change of weather from wet to dry, the more elevated ground was not effected, or if any, but partially, and upon the whole the crop is a full average one. These suggestions are submitted for what they may be found to be worth.

Live Fences.—The farmers of this county have of late become interested in propagating live fences, instead of the usual fence of timber in common use. Timber for making rails becoming more scarce every year, while the subdivisions of farms increases, for convenience and interest, necessity has almost required the change. Jacob Grave, of this county, has been engaged in the cultivation of the white thorn, for hedging for the past twenty-five years, and his farm is now a model for good and permanent fencing. Seed from the shrub is produced in large quantities, and can be easily obtained at almost all seed-stores. For further particulars on this subject, we refer the reader to the 7th and 9th numbers of the Indiana Farmer.

There has recently been brought to this county from Texas,

a large amount of Osage Orange seed, and is now being propagatedby Jas. Hammond. He will soon be able to supply all demands for the plants. We are not prepared to institute a comparison between Osage Orange and White Thorn; but a few years will test them.

Fruit Culture.—The following varieties of fruit trees, furnished by our nursery men is here inserted. No. 1 is designed to represent the most approved for flavor, fruitfulness, &c. No. 2, as less valuable, and No. 3 as not desirable. Those which have no numbers affixed, have been but recently introduced into our county, and though they are highly recommended, they have not yet undergone the test of soil and climate, which in some cases materially change the character of trees and seed bearing plants.

SUMMER APPLES.

2 Kirkbridge White,
1 Princess Harvest,
3 Sweet June,
2 Carolina June,
Red Astrian,
2 Summer Queen,
3 Early Red,
Josophene's Early,
1 Daniel Apple,
3 Smith's Sweet,
2 Red Stripe,
1 Summer Pearmain,
2 Yellow June,
3 Golden Sweet,
1 Mendenhall's Seedling,
1 Sweet Bow.

FALL APPLES.

1 Rambo,
1 Yellow Belleflower,
2 Milam,
2 Trenton Early,
Sweet Belleflower,
3 White Sweeting,
2 Sweet Maiden's Blush,
Vanderver's Sweet,
1 Stillwater Sweeting,
1 Claybank,
2 Haglow,
3 Carolina White Sweet,
2 Melting Pippin,
1 Maiden's Blush,
1 Holland Pippin,
3 Gloria Mundi.

WINTER APPLES.

2 White Pippin,
1 Wine Apple,
1 White Winter Pearmain,
2 Baldwin,
1 Wine Sap,
2 Vanderver Pippin,
4 Smith's Cider,
Edgar's Sweet,
3 Pennock,
2 Tolpahocking,
2 Newtown Spitzenburg,
3 Red Baldwin,
Superior Apple,
Red Rupett,
2 Red Winter Pearmain,
Penterbaugh's Sweet,
3 Roman Stem,
2 Never-fail,
1 Golden Russet,
1 Black Apple,
1 Rhode Island Greening,
3 American Pippin,
1 Roxbury Russet,
2 Romanite,
1 Red Sweet Pippin,
2 Gate's Apple,
3 Green-everlasting,
3 White Pearmain,
2 Brown's Imperial,
Northern Spy,
Imperial Pearmain,

SUMMER PEARS.

2 Julienne,
3 Green Summer Sugar,
1 Skinless,
3 Sugar Pear,
1 Early Butter,
2 Pound Pear,
1 Seckle,
2 Balderson's Early,
2 Orsborn's Pear,
1 Early Catharine,
3 Fine Gold of Summer,
Summer Frank Real.

FALL PEARS.

1 Mouth Water,
2 Belle Pear,
1 White Deine,
2 Pearson Hunt,
Autumn Superb.
2 Warton's Pear,
1 Bartlett of Boston,
2 Princess Germain,
Louis Rome of Jersey,
Buri Dill.

WINTER PEARS.

2 Milver's Favorite,
3 Winter Orange,
1 Davies' Pegg,
2 Brassane's Burgamott,
Dutchess of Anglenim.

CHERRIES.

1 Black Tartarian,
2 White Tartarian,
3 Oxen Heart,
3 Rea Heart,
2 Early May,
Napoleon Bigarrow,
2 Yellow Spanish,
1 Blue Heart,
2 Carnation,
3 White Ox-heart,
French Pie Cherry,
2 Honey Heart.
1 May Duke,
1 American Amber,
3 English Marella.

The plan of grafting at the root is preferred to budding, though both are practised. Set out large trees in the fall, and small ones in the spring. Plant from one to two inches below the surface—throw the top dirt in first; water well; when the hole is half filled up, so as to settle the dirt around the roots, pack well; then fill up the whole to the top, but do not wet it. Put straw, or other trash, from two to three feet around the tree, six inches deep. All young orchards should be tended in potatoes or other small grain, but not corn. The whole crop of apples in this county will average, one year with another, 500,000 bushels, and the average price in the orchard 10 cents, making the crop worth $50,000. For further particulars under this head, the reader is referred to an article in the Indiana Farmer of Nov. 1st.

Soil, Timber, &c.—The soil for the greater portion of this county, consists of clay. The south-eastern section is underlayed with secondary limestone. The northern part presents mostly a level surface; while in the western portion, the soil rests upon beds of pebble limestone, with admixtures of silicious

substance, gradular from small stone to the finest sand. These substances are in a state of disintregation, which greatly contribute to enrich the soil. This condition of the sub-stratum is favorable to the production of vegetable matter, and renders manuring less necessary; and from its porous nature, the heat draws the moisture from below, when most needed, whereas, in stiff clay sub-stratum the reverse takes place. The sun, in the absence of rain and during crop time, by its intense heat bakes this kind of ground, which effect is visible in the cultivated plants by their exchanging the livid green of summer for the autumnal yellow. From this fact, it is obvious that to counteract this unfavorable condition in stiff soils, deep turning up by sub-plowing is highly indispensable. This plan will furnish depth of mould for the roots of plants to penetrate downwards, and thus receive moisture, which they do not, nor can they obtain under the system of shallow plowing, in dry seasons. There is not a section of land in this county, but what is susceptible of cultivation. The surface is not too broken, boggy, nor is it submerged. The face of the ground on the contrary, for the most part is undulating, with sufficient declivity for the water of rains to pass gently into the natural channels, which run through every portion of the county. The best system of farming such land, where the clay sub-stratum prevails, is to plow deep, and put down in clover; mow the first crop, and when the second is in full bloom turn under with the plow and sow in wheat or rye, sowing at the same time clover and timothy. Pasture and mow for three years; then break up in the spring—plant with corn—next year in spring, barley—in the ensuing fall haul manure, sow in wheat, at the same time also with clover and timothy. Then pasture and mow until the grass wants renewing, letting the lands rest as long as the grass continues to occupy the ground to advantage.

The most usual crops raised in this county are corn, wheat, oats, barley, flax, potatoes, rye, buckwheat, timothy, herd, and clover, in quantities about in the same order as they are

written. There were about 25,000 acres sown with wheat the past season; the average product was about 15 bushels per acre, making 375,000 bushels grown in the county in 1851. Stables, barn-yard and hog-pen manures are the sources for enriching the soil. The stable manure is the best on account of its retaining its qualities; one load of this is worth three of that made in the yard, where it becomes so drenched with rains that it is of little value in comparison with that kept under shelter. The time of applying manure is in the latter part of summer, spread on soon after the ground is plowed for wheat; or perhaps as good a time is April, for corn. In working the corn the manure becomes incorporated with the mould better than on wheat ground, and its virtues are thus retained from waste by the sun's influence.

Draining.—The plan adopted by most of our farmers is to open a drain of the depth from 18 to 24 inches, and of the same dimensions in width, then provide oak timber, from 20 to 30 inches in length, according to the width of the drain; rive them out about two inches thick, place them in an inclined position in the drain, letting one end rest at one side of the bottom, and the other against the opposite side, so as to reach within 8 or 10 inches of the surface of the ground, and below the ordinary depth of plowing, forming a triangular space for the collection and passage off of the water. Then fill in the earth so as to be level with the surface on both sides. This mode of draining costs, on an average, exclusive of the timber, from 50 to 75 cents per rod, and answers a most excellent purpose.

All of which is respectfully submitted,

DANIEL CLARK.

APPENDIX,

CONTAINING AN ACCOUNT OF THE DISCUSSION, WHICH TOOK PLACE AT A SERIES OF MEETINGS OF THE STATE BOARD OF AGRICULTURE, HELD IN THE HALL OF THE HOUSE OF REPRESENTATIVES, IN PURSUANCE OF A RESOLUTION ADOPTED BY THE STATE BOARD ON THE NINTH OF JANUARY, 1852.

Reported for the Indiana State Journal by L. Bellman, Esq.

JANUARY 17, 1852.

Mr. LITCHFIELD was called to preside.

Governor Wright suggested that the subject of this evening's debate should be, "*What is the best system of roads for Indiana.*" The society having signified their concurrence in this suggestion, he proceeded by saying that Mr. Ellsworth had suggested an improvement upon the common plank road. Instead of covering the whole of the track with plank, cross ties were laid down, and on these planks about 14 inches in width were placed lengthwise for the wagon wheels to run on, and the intermediate space was filled in with dirt. This would afford a firm footing for the horses, whilst the wheels would have a smooth and firm track. For common roads he believed that ditches cut on each side of the track, about 18 feet apart, and covered, as in draining lands, would keep the road always dry.

Dr. Brown said that he had a good deal of experience in roads, having been familiar with them in this State, from the trace marked out with the axe, to the railroad. In regard to the improvement of Ellsworth, it was his opinion that the intermediate space between the planks would have to be filled with gravel, else in winter they would be almost impassable on account of the loose nature of our soil. The planks would have to be at least three inches thick, because the travel upon them being lengthwise, they would more easily split. As to the comparative merits of the gravel and plank roads, he believed the latter to be cheaper, and the resistance upon them was not half as great as on the former. The resistance on the plank laid lengthwise, was not as great as when laid across the track.

As to the Governor's suggestion of ditching the roads, the objection was that these ditches would fill up; besides our winters were such that in the spring when the frost was leaving the ground, the horses would sink down to the depth of at least 12 inches. Our soil he thought was too loose for that kind of road. Our system of working common roads was miserable. Every year we but do over what was done the year previous; and bridges are built in such manner as to render them but temporarily useful.

Mr. Bollman said that in strong clay soils, such as is found in Monroe county, the plan of Mr. Ellsworth would not do. The clay is retentive of water, and in a short time the spaces between the cross ties would become so deep with holes that the safety of the horse would be endangered by the cross ties. Gravel would have to be resorted to, and this was so scarce, that the cost would be greater than the plank road as now built. He did not think that plank roads would prove profitable generally. It was only in favored localities, where the plank were destroyed by the wear of travel, that they would prove profitable; but when the plank decayed by exposure to the weather or influence of the ground, more or

as much as by travel, they would be unprofitable. And this, he thought, would be the case even with roads passing from one county town to another.

The Governor's suggestion of ditching would do if the ground was thrown up in the middle, so that the water could run off into the ditches. In clay soil and in a rolling or hilly country, the washing of the road was the great evil, and no other remedy existed, but to drain off the water from the centre of the road directly into the ditches. If suffered to run along the wagon track, gullies were soon washed, and the usual working they received under the existing laws was to have these filled up with loose dirt, to be washed out again by the first hard rains. But no hope can be entertained for better common roads until the laws will require a narrow track to be worked in such way as to make the centre of the road the highest, and not, as now, a broad road, so flat that the accumulated waters from it alone will forever keep it scarcely passable. For general utility, we must rely on well worked common roads. And to work them, one of the best and cheapest scrapers was made by taking the shovel off the shovel plow, and in its place pinning on a board about two feet long and one foot wide, made of oak and bevelled at the lower edge.

Mr. Murray remarked that if we have to rely on common roads, then it becomes an important question how these roads may best be worked. It has been very correctly said that by the present mode the labor of one year is but to do over again what was done the preceding year. There was but one correct method, and that was to adopt a narrow track, and throw the ground up in the centre. In Elkhart county, this plan was being adopted. From eight to ten furrows were ploughed along the sides of the track and then the dirt carried to the centre by scrapers. When thus made, the road was dry, which was the great object with them, the country being level.

The plan of Mr. Ellsworth would suit the north well.

There it was sandy, and the track would never become deep, whilst the wheels would have a firm, unyielding track. It was not uncommon to see wagons stall on account of the deep sand through which they had to run.

No depth of drainage would make the track dry in many parts of the north, as for instance along the Michigan road, and the Governor's plan would therefore not do. In coming to this city he had passed over that part of the Michigan road that was planked, and although the ditches on each side were three feet deep, yet there was so much water on the track beneath the planks, that the horses, in treading on them, would throw the water several feet up.

Mr. Nelson remarked that we all felt interested in this question. In his county, (Allen,) their most serviceable roads were plank roads. They had more of them in that county than elsewhere in the State, and they still continue to make others. (Here Mr. Nelson enumerated them, all centering at Fort Wayne.) They could not yet determine their ultimate profitableness as stock, but of their great utility there could be no question. The county of Allen paid heavy road taxes, and much labor was bestowed on their common roads. In making the track, the whole of it was ploughed up, the first furrow being run in the center of the road, and back furrows thrown upon it. The middle of the road was made high.

Governor Wright said that the Ellsworth plan of making a plank road would do in a sandy soil. We have in Indiana near 700 miles of plank road, but he thought they would not be profitable. For general advantage we must rely upon the common road, with ditches about eighteen feet apart, and where they cross streams of water, stone ought to be placed in the bottom, in preference to small bridges. As now constituted, these bridges produce mud holes on each side, and are not permanent. But when once well paved with stone, they last always, and are much more easily crossed. Roads of this kind could be made for five hundred dollars, or seven

hundred dollars, a mile. The ditches must go below the soil, into the hard, firm ground beneath.

Mr. Milliken: The Governor's plan is a novel one, and he thought it a favorable one in clay soil. Where roads can be well drained, they would be permanent; all that is wanting is to have the water drained from each side. Mr. Ellsworth's plank road would not do in a clay soil. The proper way to make county roads is to concentrate the work on some one road of a district or township, and that one to be the first taken up to which the heaviest donations are offered. That course was pursued in his county; and roads thus made are completed, and afterwards need no patching. He regretted to hear that opinions existed unfavorable to the profitableness of plank roads, for he was desirous of seeing more of them.

Dr. Lewis: As all take a part in these discussions, doctors may be allowed to make some suggestions, for they travel much on these roads. The soil in his county, (Warrick,) was a tenacious clay, and the land level. Although in some of the roads the ditches are dug deep, and the dirt thrown high in the center, yet in winter they become flattened, as the soil is of a sliding nature, and retaining the water, they become almost impassable. We have no gravel or boulders, or rock, and the Governor's plan of crossing streams is not, therefore, practicable with us. He doubted whether plank roads are the kind for Indiana. Our experience cannot yet determine for us their profitableness; but if they are to become so, their construction must cost less. Mr. Owen's work had created heavy and unnecessary expenditures in their construction in the southern part of the State. In many things his suggestions have been strictly followed, which subsequent experience showed were unnecessary. It was not necessary to harrow and roll the track, or to put string pieces under the plank, or to employ the services of an engineer.

Mr. Brown: The character of the soil in Ripley county is ac lay, but different from that in Warrick. The sliding char-

acteristic of the latter is attributable to the fine quicksand which is, almost imperceptibly, mixed with it. The base of this sand is lime, which is decomposed when exposed to the atmospheric influences, and hence its sliding nature. He concurred in the opinion that the track of our roads should be narrower, but the timber should be cut off so as to let the sun's rays reach the whole road. In compact, argillaceous soils, the Governor's plan would do, but not in prairies, or in soils abounding in vegetable matter, no difference to what height they would be thrown up. The higher, indeed, the worse.

In making plank roads, no general rules can be followed. In loose soil, string pieces must be used.

Mr. Spencer: No one system can be generally adopted. In the north there is no stone, but timber, and a soil which is unfavorable to good common roads. There, he thought the plank road best. In the middle there was an abundance of stone, and turnpikes might be advantageously made. In the south, the soil generally was a compact clay, but there was no stone. Dirt roads there would probably be best. No substantial improvements have been made in the common roads of the State. In a township in Dearborn county, one provision of the bill now before the House had been tried, and it proved to be an excellent one. That provision is to allow the township or road district to tax themselves, and apply this tax to the permanent construction of one road first, then another, and so on. In the township to which he referred, a leading road to Lawrenceburgh passed through, which formerly had been given to a company. By the application of the fund as stated, the road was purchased from this company, put in complete repair, and the toll gates taken down. Labor, as usually applied to our roads, is productive of but little good; a moderate tax is far more beneficial.

The debate was further continued by Messrs. Murray and Cockrum; when, on motion, the following questions were selected for next Saturday evening:

1. What is the best road for our people, taking into consideration price, durability, &c.?

2. What is the best system of draining and ditching our swamp lands?

3. The comparative value of the different kinds of grasses, and their adaptation to different soils?

The Society then adjourned.

SATURDAY, January 24.

Mr. COCKRUM was called to the chair.

The question discussed was, "What is the best mode of draining swamp lands in the State."

Mr. McDonald of Lake said, that the best mode was that one best adapted to the particular locality. In some places where lands overflowed from streams rising above their banks, dikes or levees could most advantageously be resorted to. In other places where a sufficient fall could be had, a deep ditch cut in the direction the water moved is the best mode. Connected with this main ditch, branches ought to be made, for they would more thoroughly drain the land. Very often all that was necessary was to cut away the thick sod of the wild grasses, for the water would wash out the sand beneath, and form of itself a channel sufficiently deep. But there was another mode, made necessary by the peculiarity of the causes that formed the swamps of the Kankakee. This river had obstructions in it, which had caused it to make large bends, overflowing much land in its circuitous course. By cutting a canal across these bends, this land would be drained. Between what it is called the highland and the bank of the river, there are swamps which on account of their being wet when the bank was dry, has led many to suppose these swamps to be lower than the river itself. He thought this was not the case, but the springs flowing from the highland in their way to the river and its

tributary creeks, encountered high grasses which turned the course of these springs in every direction, and so much delayed the discharge of water, as to keep the ground always covered. Again, in the creeks were found obstructions, which, in like manner, so changed their course as to force them into large circuits to get around these barriers. These difficulties were of a character that could not be overcome but by a systematic course of draining. If left to individual enterprise, these obstructions would never be removed, for individuals were not sufficiently interested to adopt such system. The State, he believed, ought to do it. If it did, nine of every ten acres could be drained, the country made healthy, and a large school fund be derived from the sale of the lands. The increase of the value of property would soon remunerate the State for the necessary outlay, by the enlarged amount of taxes derived from this increased value of property.

Mr. Bollman remarked that he came from a county which had no swamps, and therefore could say nothing on this subject from personal experience. But the subject itself had always been to him an interesting one, and hence he had been led to obtain what information he could about it.

There were three modes of surface draining. One, and the most common, was by ditches, which were used when sufficient fall could be obtained to pass the water off. But how to succeed when the fall is almost imperceptible is not so well understood. But success, nevertheless, was easy. If water can be discharged as fast or nearly as fast as it flows in, the ground can be drained. The discharge can be hastened by shortening the distance over which the water must pass, and by decreasing its friction. Both of these modes are combined, and he thought they would be successful in the Kankakee marshes. The nature of the obstructions has just been pointed out by Mr. McDonald. In the rivulets and creeks and the river itself, these obstructions so turned the flow of the waters that a removal of them by a straightened channel, would carry

out a given volume of water in one-half the time now required. Add this to the decrease of friction which would follow, if the water was changed from its present tortuous course, and he could not doubt the success that must attend such system of drainage when applied to the Kankakee and its tributaries. The results that follow a straightened channel and a decreased friction, might not be readily comprehended, but engineers could understand it, for it was from them he had obtained the views just expressed.

In many places in the State, swamps a half mile in width and three or four long, were now owned by private individuals, and one or two of them, in possession of the lower portions of it, might stop all improvement by drainage, by refusing to co-operate with the owners above them. It might properly become a subject of legislation to pass a general law fixing the conditions upon which such drainage might be effected. As a sanitary regulation alone, this legislation could be justified.

Mr. Litchfield said he saw good already arising out of our meetings. He had come here opposed to attempting a drainage of such marshes as the Kankakee, but he would now favor it. The remarks made here had recalled to his mind a successful instance of draining that had come under his own observation. A person who had 160 acres to drain, had entirely succeeded by cutting a ditch. Before it was made, it could not be told which way the water would run, but when made, the waters, by being collected in a straight channel, acquired a current as rapid as a person could walk.

Mr. Murray said that the swamp lands he knew best were those in Elkhart county, and he was well satisfied that they would be of little value until drained. The swamp lands entered in that county were formerly valued for their wild grass of which hay was made some years ago. But since it has been shown that clover grows well in that county, clover hay has taken the place of swamp land hay. The tame grasses will not grow on these swamps, and hence they have

become almost useless as meadows. Near his farm was a creek from ten to fifteen miles in length, and along it was a swamp varying from a quarter to a mile in breadth. He did not see how individuals would drain it, because of its extent, and of the necessity of straightening the creek. The State might do it. But when drained these lands would be among the best in the State. A neighbor of his, who purchased at the head of this swamp, had succeeded, at a little cost, in draining his farm, and it was now as productive in wheat and corn, as the best farms. And where lands can be drained by the usual ditching, he would recommend to their owners the remarks of Mr. Morgan, published in the last number of the Indiana Farmer. But in the county in which he lived, there were swamps that could not be drained by any method yet referred to. These swamps were in the centre of large basins, through which no ditches could be cut.

Mr. McDonald remarked that the subsoil of these basins was a tough ane tenacious clay, which prevented the water from passiny through into the sand beneath. A well sunk in the centre of the basin, through the clay, would, he thought, effect a drainage of the whold basin.

Judge Smith said, that in draining the swamps of the Kankakee, the first step taken should be to ascertain the fall in that river, by a survey. Such survey would also show the probable cost of the drainage, and if too expensive, the State ought not to undertake it. The current of water carries with it portions of the sides of the banks, and deposits them in bars, sometimes raising these bars above the level of the land adjacent to the river. Hence swamps are formed, but these may be drained by removing the obstructions which have produced them.

The draining of swamps in most places will require uniformity of action, on account of their length. And it is hard to get this, where the land has been sold, because some of the landholders would not be willing to pay their average portions. Two systems to drain the swamp land donated to

the State are presented for our consideration—one by the State, the other leaving the whole matter to individual landholders. If the State should not drain them, the land might be sold with a condition to the title that they should be drained.

Mr. Cockrum remarked, that from his knowledge of swamp lands, which was considerable, he believed that great advantages could be obtained with but little expense. At Honey Island, in the State of Mississippi, there is a small river with large bends, and connected with them were a great many bayous. Some twelve or fifteen years ago a canal was dug across one of these bends, thus shortening very much the distance the water had to pass over. Through this pass the water run with rapidity, and the result was that the farms around the bend were drained, and immediately doubled in value.

With the Potoka river he was quite familiar, from the first settlement of the country. In early times, there were many beaver there, and these animals built their dams across creeks emptying into it. These dams turned the direction of the streams, giving to them winding courses. The swamps of the Potoka were found where these dams existed. The bends were often from a mile to a mile and a half around, when a stone could be thrown across from their commencement to where they terminated. By cutting a canal across these places, he believed the swamps would be drained. The cost of the canal would be small, compared with the benefits derived.

Mr. Williams said that in Knox county, the lands along the river were kept wet by its overflowing its banks. Creeks emptying into the river, were backed up for three or four miles. With a view of avoiding these overflows, he had introduced the bill now before the House, authorizing the formation of companies to construct levees. He thought it would be a better policy for the State to give the swamp lands to the counties.

SATURDAY, January 31.

Mr. Williams, of Knox county, presided.

The question for discussion was, What grasses are best adapted to different soils, the best for pasturage and meadow; the best modes of putting the seed in, and the best mode of curing the grasses for hay?

Mr. Fletcher said that an enquiry had been made last evening, whether our common blue grass was the same as that of Kentucky. At the first settlement of this country, blue grass was found at various places; at Andersontown, Fort Wayne, and the island at this place. He had conversed with some gentlemen of Ohio, who were familiar with it there, and they all concurred in the opinion that it was the same grass as the Kentucky. The difference in its appearance, at different places, was attributable to particular and local causes. When the ground was trodden hard, the grass becomes small here as it does from the same cause in Kentucky, and both then present the same appearance. In Pennsylvania, this grass is called Green grass, and in New York, June grass. It is well adapted to clay soils, that are not too wet, and also to swamps that have been drained. It grows well as far south as middle Tennessee, especially among the mountainous districts of that State. He regarded it as the best grass for pasturage. Cattle like it better than Clover, and, take the whole season round, he preferred it for hogs. Mr. Waddle, of Ohio, had informed him that if cattle are kept on this grass during the winter, they will take fat in the spring as readily as if they had been fed on corn. During the month of December, he had kept 100 head of cattle on 40 acres of Blue grass, which had not been pastured from the June previous. They remained in as good condition as they had been in the month previous, when they were on good timothy meadows. He did now allow them to eat too close, lest the pasture might be injured.

The manner in which he put the grass in, was to cut down the saplings, and deaden all useless timber. From 50 to 100 trees might be left to the acre. The common error was to be too careful of the timber. He himself, for many years, erred in this matter. On one occasion he employed a Dutchman to deaden from fifteen to twenty acres for him during his absence from home. From a misunderstanding of his directions, this man had deadened nearly all the timber, and when he returned home, he thought he was ruined. But by that act, he had gained several hundred dollars. Kentuckians had informed him that estimating their land at 20 dollars per acre, they make annually from their blue grass pasture, the interest, taxes, and 10 dollars per acre. We place too high a value on wood, supposing that it will be valuable at some future day. But his experience satisfied him that this was a great error. For twenty years, wood has advanced but little in value, because the use of stoves have decreased so greatly the amount consumed.

After deadening the trees, he burned the leaves off late in the fall, and in the spring following sowed the seed. He usually bought it cut up in the cutting box, and of this sowed from two to two and a half bushels to the acre. He sowed timothy with it, because it formed a pasture sooner, and was soon rooted out by the blue grass. The first year he did not pasture it, but the second year he turned cattle upon it, to keep down the sprouts. Hereafter, he purposed not to cut down the saplings until after he had sown the seed.

He maintained that it was to the interest of every farmer to keep more cattle; that we were much deficient in this kind of stock, and that to keep them, we must have more blue grass. There was no other kind of grass that so well fitted the land for subsequent tillage, for the sod afforded the best kind of nutriment to corn or wheat. To the question that had been asked, how it could best be destroyed, his own experience was that if turned over in the spring after it had

commenced growing, it never came up; but if in the fall, it would keep growing.

Judge Smith said that important improvements had been made in different products by mixing different varieties through the pollen of blossom. As it seemed to be conceded that the Kentucky blue grass was better than ours, by sowing the two together, a permanent improvement might be made in our own variety. Different kinds of grasses often do better together, than when sown separately. In Pennsylvania, clover is always sown with timothy for meadow, and the hay is preferred. Here the objection was that the clover did not ripen early enough; but he thought that the timothy was suffered to stand too long. But the grasses are especially valuable as fertilizers. Where grass will grow, the land can be made rich, no matter how exhausted it may have become by improper cultivation. In Pennsylvania the farm is generally divided into ten portions, of which three are in cereals, and seven in grass. The rotation is corn, oats, then wheat with manure. The land is seeded with grass while in wheat. This rotation will always improve land. But in the South, where grass does not grow, the soil cannot be reclaimed; but when exhausted, the only alternative is for the planter to seek another location.

Mr. Bollman said that the experience of the best farmers in Monroe county, sustained, generally, the remarks of Mr. Fletcher. A farmer of Lawrence county, who had been raised in Kentucky, and who had extensive wood pastures in Lawrence, had informed him that the difference between the Kentucky blue grass and that here, was owing to the soil of Kentucky being richer, lighter, and warmer, and the climate more congenial. In Monroe it was regarded as necessary to burn the leaves before sowing the seed; and he had seen pastures where this had been imperfectly done, and for years after the spots burned could readily be distinguished,—many places which had not beeen burned having no grass. If the season is unfavorable for burning, then the leaves ought to be raked

into rows and burned. This was especially necessary in the oaklands, for the leaves of the oak were long rotting. It was regarded best to sow timothy with the blue grass, and the more the timber could be taken off, the better and greater the quantity of grass.

In Monroe county, there was much of the English blue grass raised. This grass grew in bunches, and did not form a continuous sod. Which was the preferable grass, had long been, and is yet an unsettled question. The objections to the English are, that it will not bear trampling as well as the Kentucky, and its spring growth is more in the formation of seed than leaf. But the fall growth forms a heavy leaf, which continues greener than the Kentucky grass. Hence for winter pastures he regarded it as the better. It will grow in a thicker woodland. It was a matter of great surprise to him that farmers should toil through the spring, summer, and fall months, to raise enough food to keep their stock over winter, and exhaust their cultivated lands in so doing, when with little labor they might have blue grass pastures which would almost keep their stock. The recent census showed that in Monroe, as well as in many other counties, the number of acres of uncultivated lands was greater than the cultivated. The average value of lands there is about $10 per acre, and every one can readily see what an immense outlay is made in lands yielding nothing but now and then a tree for farm purposes. Yet all this land, without detriment to the valuable timber, might be made productive and profitable with but little labor and expense. The farmers had not given that consideration to woodland pastures which they ought to have done, and which they must do, if they would preserve from entire exhaustion their ploughed lands.

Mr. Secrest remarked that, in Putnam county, all grasses were very successful, because that county abounded in lime and potash. There were three kinds of blue grass in cultivation there. The first is the common or little blue grass, which is not found in the Atlantic States. It is the only

variety that propagates itself both by the root and seed. Hence, it forms a sod, but the English blue grass grows in tufts only. If he remembered aright, the only other grass in the State that spreads by root is the white clover. And it is, owing to this quality that it takes and retains its hold on the soil. It is a common opinion that it will root out the blue grass itself, but this is attributable to another cause. If the blue grass be pastured until the end of May, it will not form seed that year, but the white clover seeds twice, and so close to the ground that it is not easily destroyed by pasturing. He dissented from the opinion expressed that English blue grass will grow in the shade. The small blue grass and orchard grass will do much better than it, and the last of these is usually kept for pastures in the months of February and March, on account of its keeping green during the winter. All grasses growing in tufts will not bear trampling as well as those which form a compact sod. The blue grass of the Atlantic States is different. It is of a deeper color, almost of an indigo blue. There it forms a deep sod, but here it is light. Our main reliance, he thought, must be on the little blue grass.

Its advantages are not sufficiently appreciated even by those farmers most using it. One of these, in his county, had sold two fields, one of corn for 200 dollars, and one of blue grass pasture for 100 dollars. The first fed a lot of cattle one month, but the last sustained them for two months; thus showing that the corn, for which double the price was given, was worth but half as much as the blue grass. The usual mode of feeding it was to let the young stock run on it so long as the weather allowed them to graze upon it. It was only when it was covered with snow, that it was found necessary to feed with hay or fodder.

As to sowing it, his experience was that if sowed on snow, the leaves need not be burned off, for the snow carried the seed into the ground; but if no snow, the leaves will prevent it from taking an immediate hold, but the seed is never des-

troyed, and will ultimately find its way to the ground and come up. In Putnam county it was not usual to fence the ground until after the grass came up. For the first year after being enclosed, no stock were allowed to go upon it, but it was permitted to seed. After that, it required no further attention.

There were two varieties of red clover—the common red and the winter. The latter starts to grow later in the spring, and bears its seed the first crop. It is better on these accounts to mix with timothy for meadows. The English blue grass mixed with clover made a good meadow, for the former held the latter up. The timothy is usually sown in the spring upon the oats field.

The best soil for grass was indicated by the growth of trees. Potash trees, as the sugar, will show where grass will grow luxuriantly. In the south where such trees do not grow, there are found no grasses. The expense of putting in wood-land pastures was small—the girdling of the trees, cutting down the saplings and the cost of the seed and sowing it, did not exceed $1 70 cents per acre.

Mr. Murray remarked that as it was now nine o'clock, and much yet remained to be said on other parts of the question, not yet alluded to, he moved that the same subject be continued for discussion at our next meeting.

Which motion carried.

When the meeting adjourned.

FEBRUARY 7, 1852.

Mr. BRADY, of Marion, was called to the chair.

The question discussed was the same as at the last meeting —the different grasses for pastures and meadow, the best modes of putting in the seed and of curing the grasses for hay.

[The last report being confined to blue grass for pastures, this one will be limited to grasses for meadows and the curing of them.]

Mr. Nelson said that the great interest of this State was grazing. It was, too, good for grain growing, but many parts of it were so far from market, that it cost nearly half the value of the grain raised in those parts, to get it to a market. Hence it became an object to raise stock which could take itself there. Even wool can be transported at a small cost, compared with that of hauling grain. Five cents on the dollar's worth will pay for the carriage on wool, but thirty-three cents, or one-third of its value, is required on wheat. Hence the value of grasses, both for meadow and pasturage, for upon them is our chief reliance. The county of Allen was good for sheep as to every other matter, except the growth of the wild parsnip, which was so abundant as rendered it difficult to be eradicated.

Mr. Williams of Knox remarked that he thought the grasses more profitable than grain. His custom was to sow clover with timothy for meadows, for it kept the ground loose, and all the clover he raised in this way he regarded as clear grain, as its growth did not interfere with that of the timothy. He sowed timothy seed in September, and the following season obtained as good a crop as any subsequently. In clearing off ground, he sometimes sowed grass immediately, and left it in until the roots of the trees had rotted, using it principally for pasture. In wet lands he sowed red top, which, as it ripened later than clover and timothy, afforded a leisure time in which to cut it. He made wood-land pastures by hauling out hay and feeding on the ground he desired to seed.

Mr. Murray, of Elkhart, said that the remarks that had been made on this subject were made by gentlemen from the centre and south parts of the State. He lived in the extreme north part, and hence many remarks made, he found would not apply there. The tame grasses raised there were timo-

thy, red top and clover, but the latter was the principal crop. It was not, however, until late years that it had been introduced, for the early settlers thought it was too far north for clover. The mode of putting it in was to sow it on oats immediately after the latter is harrowed in, at the rate of four or five quarts to the acre. As soon as it was up, plaster of Paris, from three pecks to a bushel to the acre, was sown over it, which much improved both the clover and oats. Clover could not be safely sown in the fall, for it was often destroyed by the winter, and the danger in the spring was from drought. The application of the plaster ought to be continued every spring following, at the rate of about a-half bushel to the acre. It increases the growth of the crop, and its effects can be seen even for three or four years after in the increased yield of succeeding crops of grain.

The clover was allowed to remain three years, and the second growth suffered to grow up without being cut or pastured, and turned under for wheat. He regarded it as the most important grass of the State, for analysis showed that it was more nutritious, it fattened stock more readily, and was the only grass by which our worn out lands could be resuscitated. He thought this State was emphatically a grain growing State, and to sustain our lands such a fertilizer as clover will always be required. Its cultivation, too, would eventually cause the fallowing system to be abandoned, and in its place would be substituted a profitable rotatiou of crops, based upon clover.

Mr. Bollman said that when timothy seed was sown for meadows, it was difficult to get a good set. Before it could spread sufficiently, weeds and the red top obtained such a hold as to render the meadow not very profitable. One farmer had informed him that the seed alone had cost him two dollars an acre, in his efforts to put in meadows. This difficulty arose, he thought, from the manner in which the land was put down. The custom in his county, (Monroe,) was to sow the seed on wheat in the fall, or on oats in the spring.

If all things favored, either of these modes was successful, but the drouth, both of the spring and the fall, usually followed and destroyed the seed, when sprouting. This uncertainty of success debarred many from putting in as much grass as, otherwise, they would, and ought to do. The remedy, he believed, was an obvious one.

In the first place, the ploughing ought to be performed differently. He spoke now of clay soils, such as in Monroe. It was usual to plough up a whole field before putting the harrow upon it. When first turned up, the clods crumbled easily, but if left to a drying sun and wind, but a day or two, they would not pulverize. The first change ought here to be made. The harrow should follow the plow on the same day, and the ground thoroughly pulverized. This ought to be the mode adopted, whether the timothy is to be sown on wheat, or oats, or by itself. After the ground is thus pulverized and the seed sown, the roller should follow. The ground would thus be pressed closely around the seed, which, by these means, would be protected from the effects of a drouth.

He would say one word as to curing clover. When cut down, it ought to be suffered to wilt, then turned, and soon after put in small cocks, that it might be cured by the wind passing through them. If cured too much in the sun, the leaves turn black and fall from the stem, which becomes hard and innutricious. If put up too green, especially in large, thick layers, it is liable to mould. If the weather is such as to force it to be hauled in when too green, alternate layers of straw and clover will be found advantageous. If the farmer has no straw or does not desire to mix it, he should spread out his clover into as thin layers as possible, and cut down from day to day as small quantities as circumstances will permit. A moderate quantity of salt should be spread over each layer—say from four to five quarts to each horse wagon load. In curing all kinds of hay, the prevailing error is to cut down too much at a time, and before any portion of

it is made ready for hauling in. All that is cut down each day, ought to be in cock or wind-row by dark of the same day.

Mr. Cox coincided in the opinion that clover could be safely and beneficially mixed by layers, either with hay or straw. His remarks were principally confined to blue grass, in which he expressed the opinion that our blue grass, and that called the Kentucky, were the same, as were also the Dog Foot and Orchard grass. The latter grass was a valuable kind, as affording an early pasture, and as growing well in the shade.

Mr. Cockrum, of Gibson, spoke at considerable length upon the difference, in appearance, of the Kentucky and the common blue grass. He had always supposed them to be different species. He regarded Indiana as a grass State. He had never seen our grasses grow further south than about the middle of the State of Mississippi. It ceased to grow when the Spanish moss and the magnolia made their appearance.

The mode he adopted to put new grounds in timothy, was this. He felled the trees in piles, as nearly as could be done, then left them lie for over a year, and in the fall burnt them. He then sowed the seed and harrowed it in. The first season he had a good crop, for the potash produced by the burnt timber, brought the grass forward rapidly. It required two years' growth to make the first crop of red top good. Some grasses will grow well in the shade, but the more sun they could get, the stronger and more nutritious was the grass. Green trees injured it as they do corn and other green cultivated crops.

Mr. Holloway said that surprise had been expressed of a statement made, that clover grew eight feet in height, and that it was so thick and long that it had to be beaten down before it could be turned under with the plow. Coleman, in his work on English Agriculture, says that he saw in that country, clover stalks so thick that walking canes were made out of them. As a fertilizer he regarded clover highly, for

he had seen worn out land so far resuscitated as to yield 98 bushels of corn to the acre. It would grow in poor land for the reason that a large portion of its nutriment was drawn from the atmosphere, and when turned under, it gave to the soil the nutriment thus obtained. He believed it to be a biennial plant. The blue grass pastures, he said, in the White Water Valley, were used principally for winter pastures.

[Mr. H. then referred to certain matters connected with sheep raising, but as that is the particular question for next evening's discussion, his remarks will then be reported.]

Mr. Brady, of Marion, closed the debate. He stated that he thought if clover did not freeze out, it would live for several years. But as it forms a stool or broad crown, the ground, when frozen, by its expansion against this stool, forced the root so much out of the ground as to be injured past recovery. Rolling the land in the spring would not benefit it. He turned under deeply the second crop when the seed had ripened, and sowed in wheat, followed by rye or some other similar crop. When plowing for this crop the clover seed was turned up, and the field was reset in clover. By this kind of rotation, the field could always be kept in clover, and constantly improved. He disliked red top, and regarded it as a great pest, except in low, wet situations. There was no better grass, for early pasture, than white clover. Its yield was very great in the spring, but not much in the fall. He believed that blue grass grew as well here as in Kentucky, where the land was mellow and rich. He had sown the seed of both the Kentucky and Indiana, and could see no difference between them.

FEBRUARY 14, 1852.

Mr. Holladay of Parke was called to the Chair.

Mr. Fletcher said that he felt a deep interest in the ques-

tion for discussion this evening, which referred to the profitableness and best mode of raising stock. In the last ten years there has been a comparative decrease of stock in this State and in Ohio in the last two years. Along the line of the canal and in the northern part of this State, the farmers had almost entirely been engaged in raising grain. He believed we might now double our number of cattle, without decreasing our hogs. A farm of 160 acres, one half of it cleared, with about 5 acres in meadow and 30 acres in corn, could raise from 30 to 35 head of cattle, but at this time such farms would not average over 15 head. The consequence of this comparative decrease of the number of cattle raised has been a considerable advance in price. Cows, which a few years since could be bought for $8 or $10 now brought $15.

It became an important question, whether an increase in stock would result in a material reduction of prices? He thought not. The American people were beef-eaters. It has become a common practice, and one he thought that would not be departed from, to have fresh beef on the table every day, and almost every meal. The demand for oxen to go to the Pacific coast was considerable, and would continue. Under these circumstances, he believed our stock of cattle might be greatly increased, and the farmer continue to receive remunerating prices.

The first thing that demands our attention is the improvement of the breed. Although our Durhams are but crosses with the common stock, yet they are worth five dollars more than the common breed, when both are two yerrs old. He was glad to see this subject engaging the attention of the farmers, for since the agricultural societies had come into existence, some of his neighbors had gone into Kentucky and brought here some improved stock. But independent of its greater value, fine stock had a moral influence that no farmer ought to disregard. To make our children take an interest in agricultural pursuits, we must so conduct the farm as to make it a pleasant home, and one in which they can take an

interest. He knew no way by which this could be better done than by raising such stock as will create a pride in its management and care.

The error being committed was in raising too many mules. He feared that this kind of stock was commanding an undue attention, and must soon result in over-production. Both here and in Kentucky a great demand existed for large brood mares for the purpose of raising mules, and this demand, by taking from us our brood mares, would, in a short time, materially decrease our stock of horses.

Sheep raising was becoming an important matter. In some parts the land was too low and moist to be well adapted for rearing them, but most of our State was well suited for them. In the oldest States the great object seemed now to be, to produce wool of the finest quality, without regard to the size of the body. Hence it is that Pennsylvanians have come here for the last three years to buy up our large bodied common sheep for mutton. He believed our present policy was to raise large sheep for slaughtering, which would be profitable not only on account of the demand to which he had just referred, but because the use of sheep in this way would increase, as the felts, and suet were now put to more advantageous uses than formerly.

Mr. Bollman remarked that having it in view to turn his entire attention to wool growing, he had made a good deal of enquiry as to its profitableness and the best mode of rearing sheep. The chief disadvantage under which our farmers now labor is the impossibility of securing bucks, in sufficient numbers, and of the requisite fineness of wool, to enable the farmers to annually exchange bucks with each other. The sheep is an animal of delicate constitution, and more than any other animal is liable to deterioration. Some farmers in Monroe, who had good bucks had bred in and in until their flocks had become diseased. It was, he believed, a well settled rule, that in all stock raising the parent should never cross with his offspring. Now to avoid this evil, every far-

mer ought to be able to annually exchange bucks with his neighbors, but this cannot be done under the present condition of wool growing in most counties of the State. More attention must be given to breeding animals, and he was glad to learn that the Wayne county society was importing animals from which other counties would, in time, be so largely benefited.

He concurred in the views just expressed by Mr. Fletcher, as to the comparative decrease of cattle in this State, and the propriety of increasing largely that stock. There was a reason, however, for that decrease. Hogs are easily raised, and require less outlay in preparing to raise them. They are soon brought into market, and now pay so well that those farmers, and the proportion of them was a very large one, who not being prepared to shelter and feed sheep and cattle, turn their attention to hog raising. To raise stock profitably, besides the winter pastures and meadows we spoke about for two meetings past, sheds and stables must be prepared, for sheep and cattle must be protected from the cold, chilling rains of the winters of this latitude. Mr. Fletcher had referred to the prosperous condition of the cattle raisers in Parke and Putnam, and favorably contrasted it with those who raise corn and hogs in the richer lands of other counties. He not only concurred in this opinion of the profitableness of cattle raising, but ventured the prediction, that the rolling clay soils, although so much less fertile, would ultimately prove the most lucrative from that very cause, for the reason, that after the soil was impoverished by corn raising, the grasses and other stock, besides hogs, would have to be permanently resorted to, that their fertility might be restored. Then farmers would prepare the requisite sheds and stabling, and when once fixed for stock raising, they never would abandon it.

Gov. Wright remarked he had no doubt that at this time ten thousand dollars might be most profitably laid out in the purchase of breeding animals for this State. He had seen

not long since two sheep ont heir way to Illinois, from Ohio, which had cost one hundred and seventy-five dollars. The want of fine animals, by which our stock might be profitably crossed, was everywhere experienced, and he believed that our Agricultural Societies would do much towards providing for these wants. But whilst leaving much to their energy and exertion, there were legislative measures necessary to protect them in the fruits of their enterprise. There were two evils which ought to be provided for without longer delay. These were to prevent male stock from running at large, and to give protection to the wool grower against the depredations of dogs.

He had, a short time since, been written to by a farmer, upon the supposition that he could do something in the matter, asking that some law might be enacted to protect him. This man had purchased a valuable lot of ewes, and whilst keeping them to the proper season to run with the male, a worthless animal had got amongst them and destroyed his expectations of an improved stock. Such instances as these are of constant occurrence. The injury sustained from the destruction of sheep by dogs was great, and an efficient remedy ought to be provided.

He thought that our flocks of sheep might profitably be largely increased. We consumed some seventy millions of pounds of wool more than we raised. The English farmer who pays so much more for rent of the land he cultivates, can undersell ours and pay a duty too. This fact shows that we have much improvement yet to make. In Ohio, the annual surplus of wool is about three millions of pounds, whilst in this State, he thought it did not exceed a quarter of a million. Mutton hams are now cured in such a manner as scarcely to be distinguished from venison. For the wool or for the flesh we may profitably, and easily and quickly raise them. But he confidently anticipated that the generous rivalry created by the influence of our Agricultural Societies, would soon stimulate all to a desire for improvement, whilst

by bringing together at our fairs the best animals in the State, a market would be opened, through which all could be supplied with valuable breeding animals.

Mr. Holloway said that he regarded wool growing as one of the most lucrative branches of farming, especially in hilly counties. There the land was best adapted for sheep, and least suitable for the plough. In some parts of the State the sheep were disposed to the liver rot, as the disease was commonly called, but he knew a farmer who had effectually avoided it by sowing in his sheep pastures some of the seed of the common parsley—about one quart to the acre. But of all enemies to the sheep, the dog is the wost. A farmer in Wayne county at one time owned a flock of nearly two thousand, which have been almost destroyed by dogs. A large number were killed by them, and others become diseased by the continual frights they were subjected to. There was not now one sheep in ten that was formerly raised in that county. And yet when this subject is brought before our Legislatures for their consideration, it becomes, usually, a subject of merriment.

An opinion had been expressed this evening by Mr. Bollman, that a great error in sheep raising arose from breeding in and in, and that disease and deterioration was the consequence. This opinion he knew was regarded as correct but he had recently read a French work, which recommended this kind of breeding to improve the fineness of the wool.

Mr. Bollman said that the expression "breeding in and in" in this county denoted the practice of allowing the parent to cross with its own offspring, and he was well satisfied that both experience and physiological facts would bear him out in his condemnation of the practice. But in Europe the expression may mean nothing more than to breed through the same species. Thus if fineness of the wool is sought for by one having a flock of Merinos, they ought not to be crossed by a Saxon buck, but by a Merino. This he presumed was all that is meant by the French authority referred to. But a

flock may be crossed by a new buck every year, and none of them be related by blood.

As to the dogs, he desired to say that this was a matter of serious consideration to him, when he thought of entering into the sheep business. He had seen so many destroyed by dogs, that he did not feel disposed to incur the expense of getting a valuable flock to be destroyed by them. His resolution had been taken, and that was to shoot every dog on his premises, when not accompanied by his owner, let the consequences be what they might. He could see from the tracks on the ground that his farm was traversed almost every night by dogs, and he know it was useless to procure sheep, whilst they prowled about. Here is my friend Mr. Murray, who has just received a letter from home, informing him of the destruction of some of his flock by dogs, whilst they were in his barn-yard, close to his dwelling house. Yet when the General Assembly is invoked for protection against these worthless dogs, the farmer (?) who lives by hunting at night and sleeping through the day, is better remembered than he who would improve the wealth, and comfort and increase the taxable property of the country. Those who have these matters under their especial care in our Legislature often desire to do what is right, but their limited acquaintance with the operation of laws, leads them to choose inadequate remedies. This was the nature of the bill which has just passed the House here. It allows the injured farmer to recover the value of his sheep from the owner of the dog. It presupposes two things—*first* that the injured person knows and can prove whose dogs destroyed his sheep, and *second*, that the owner of the dogs is worth sufficient property to collect a judgment against him. Now every farmer knows that in nine cases out of ten, he never can see the dogs, as it is in the night time that the destruction is committed; and even if he knew them, he could not *prove* the offence upon them. And then, again, in nine cases out of ten, the owner of these dogs is law proof. Our friend Dennis of Wayne,

when here as a member of the State Board of Agriculture, informed us that *three sheep* had been brought into that county which cost one thousand dollars. It is such property that we can leave by the side of our dwellings at night to be destroyed by dogs, with an assurance that such a law as this will give adequate compensation if they are destroyed. Such a law is a mockery. There are but two courses to be pursued—separately or united. Farmers must be allowed to destroy dogs coming on their premises without an owner, or a tax must be laid upon all dogs to create a fund, out of which to indemnify losses sustained from them. The same principle must be adopted which we act upon in upholding society itself. We tax the orderly and well disposed that they may be protected from those inclined to evil. For himself he believed that both these remedies ought to be given.

Mr. Murray moved that the subject of stock raising be continued for discussion for another evening, and that hereafter we meet at half past six o'clock; which was adopted.

FEBRUARY 21, 1852.

The question discussed this evening was the comparative value of the different kinds of stock.

Mr. ROCKHILL, of Allen county, was called to the chair.

Gov. Wright remarked that although the subject of this evening's discussion had reference to stock raising, yet as a remedy against losses from dogs was now a question before the Legislature, and as there were some farmers here on a visit to the capital, he would be glad to hear their opinions on this matter.

Mr. Pope in answer said that he knew several flocks of sheep that were broken up by the dogs, and that some remedy ought to be provided against their depredations.

Mr. Cook believed that the dogs which kill sheep are sooner or later discovered, but then the evil is done.

Mr. Williams remarked that about two years ago he had been suddenly awakened one night by an animal jumping through the sash into his sleeping room. Upon getting up he discovered it was one of his sheep, and when he went out of the house, he found that the dogs were after his flock. In the morning he ascertained that nine of them were killed. Such losses had deterred him from extending his business in wool growing, although on several accounts he preferred sheep. They destroyed more weeds and sprouts on new pasture lands, and do not injure the soil by tramping. But he had no information by which to determine the comparative value of sheep with other stock.

Horses and mules are now regarded the most profitable on account of the high prices of these animals. But to enter into this business extensively, a farmer would have to keep many more brood mares than he could profitably use on his farm, and then the profits would be greatly diminished by the outlay for keeping the mares.

Mr. Nelson said that he thought sheep or horses more profitable stock than cattle. When considerable numbers were raised, horses were more hardy than cattle, and consequently, the loss by death was much less. Although there was some difference in the value of food consumed by a horse until he is two or three years old and a steer of the same age, yet the former would sell for three or four times as much as the latter. But he concurred in the opinion expressed by Mr. Williams, that if more brood mares have to be kept than can be used, then the profit of horse raising is considerably reduced, unless under peculiar circumstances such as existed in some parts of Allen county. The gentleman who now occupies the chair has large numbers of horses grazing on prairies, and they cost him so little that he seldom sees them for a whole season. Another farmer of that county has about one hundred which range on the prairies during the grass season, and in winter he feeds them on hay, using them for trampling out his wheat. He sells yearly about a thou-

sand dollars worth of them, and his outlay must be very inconsiderable. But when the farmer must prepare pastures and inclose his land, he thought that sheep, if they were healthy, would be the most profitable stock, especially in inland situations, which had no market advantages, because the freights on wool were small compared with its value.

Governor Wright condemned mule raising. Our farmers, he said, had directed too much attention to them, because of the favorable prices given, but he apprehended the business would be overdone. Horses were preferable stock to them, and he thought they would continue high. Cattle, too, would not decrease in price, and any one having a farm of 200 acres ought to direct his attention to that kind of stock. The advantage they had was, that as food, the great increase of population would create a demand, which would keep pace with the increased numbers that might be raised. They cropped the grass without demanding the labor of the farmer; nearly all his labor was given in preparing pastures for them. They take but little from the fertility of the soil. But in these respects hogs were very different. It is supposed that this State has sold the past season about three millions of dollars worth of hogs. To produce the corn necessary to feed this number, has required great labor, and an exhaustion of soil, that can be estimated only by those who live in districts where corn raising has drawn so much fertility from the land as to render it useless until restored by the grasses. With cattle it was very different. One of the most successful farmers of his acquaintance, confined his attention to cattle raising, and no one seemed to get along with less labor. He bought up in the spring yearlings, and kept them but one winter. When about two and a half years old he sold his steers, as at this age, he thought them most profitable to dispose of.

He desired to say something more about sheep. The Reporter had misunderstood his remarks about the surplus amount of wool of Ohio. It was about three millions of

dollars worth, and not that number of *pounds*, as reported. If wool was not profitable here at present prices, how is it, he would ask, that the English farmer who pays as much for the rent of his land, annually, as we have to pay for the land itself, can sell his wool in our market? That we have not enough of sheep, even for food, he was satisfied. A short time since he saw a man here desirous of purchasing three hundred for the Cincinnati market, but he could not find them. Let us encourage this kind of stock, by allowing farmers to kill dogs coming on their farms without an owner with them, and he thought such a law would result in the desired protection from this evil.

Mr. Milligan of remarked that in his section of the State the farmers did not plow as much as in many other portions, and consequently their soil was not so rapidly exhausted. But still they plowed more than they ought to. There were other advantages to corn and wheat growers, in keeping more stock than they do, that were well worthy of notice. A farmer who had 200 acres of land could raise from 20 to 30 acres of corn and wheat annually, and with far greater profit if he kept stock, than if he cultivated a larger number of acres without such stock. The manures which the stock would yield him would be sufficient to keep this number of acres in a fertile condition, and by putting his grain upon a sward, he would not be troubled with weeds. Hence the produce per acre would be much larger, and his labor in attending the crop far less. Cattle raising would be profitable at present prices, especially when lands needed recruiting by pasturage.

He had attempted to raise sheep, but quit it because of the loss sustained by dogs. It often happens that, when about to commit depredations of this kind, several dogs go together, and thus in one night the loss is heavy. The first intimation of such dogs being in the neighborhood is this destruction, and then it is too late to guard against it. If the dogs could be put out of the way, sheep raising would be profitable.

The present high prices given for hogs make them a profitable stock, but the production of so much corn as they require destroys the soil. Besides, too, they demand more labor to fit them for market, and this labor is not often considered in estimating the comparative value of the different kinds of stock.

Mr. Bollman said that when a farmer is about to determine what kind of stock he will raise, he ought not look to present prices alone, but should take into consideration the advantages and disadvantages of his locality. Thus cattle raising can most profitably be followed where there were wet marsh prairie lands, as in Greene and other counties. Here there is such abundant natural pasturage that one person may attend to a herd of three or four hundred cattle. All that was necessary to do was to salt them occasionally, and keep them from separating and strolling away. From a farm near these meadows the hay should be prepared to keep them during the winter. But where these natural advantages do not exist, and a farmer must enclose his lands and make pastures, the common unimproved stock cannot be profitably raised by keeping many cows. If, however, the farm, on account of its water advantages and nearness to market, is good for dairy purposes, then a number of cows sufficient to stock the farm with their offspring may be very profitably kept. If dairy operations cannot be profitably conducted, then there remain but two courses to pursue. If cows are kept, they must be of good breeds, otherwise the expense of keeping the mothers will take away the profits of the offspring. Or else the farmer must limit his operations almost entirely to buying up yearlings at a low price, as is the course pursued by the farmer alluded to by the Governor.

[Here Mr. Nelson inquired how it was that yearlings could be bought in this way.]

My friend from Allen, continued Mr. B., lives in the line of safe precedents, that is in that part of our State settled by farmers from Ohio, Pennsylvania and New York. But in

the more southern portions we have many from Slave States, whose knowledge of farming does not go beyond raising hogs and corn. These farmers have two or three cows, but do not provide hay enough to keep the calves through the winter, and have no other pastures than unenclosed lands. The consequence is, that about February their stock is in a starving condition, when they are disposed to sell the calves very low. It was this class of farmers too, who keep a good many dogs, hunting foxes and coons at night, and either sleep in the day-time, or are unfit to work. The Southern States had, nevertheless, afforded many excellent farmers.

He heartily concurred in what had been said with regard to the injurious results of corn and hog raising to the soil. Many farmers took no account either of the loss in this way, or of the labor necessary to raise the corn upon which they fattened the hogs. They looked to the sum received for them. If they took into account these matters, they would find cattle and sheep raising much more profitable than is now generally supposed. These improve the soil and require comparatively but little labor, leaving the farmer time to further improve his farm and buildings. Of the ultimate results of corn raising, he had a striking evidence in a county adjoining Monroe. On joking one of its most wealthy farmers and traders about the number of the blackberry bushes everywhere visible on the uplands, indicating an exhausted and neglected soil, the farmer answered that this was owing to corn having been raised, year after year, until the land was exhausted, and now it was seen to have been a curse to them.

As to the profitableness of sheep-raising at existing prices he could not determine, but farmers here so regarded it. But he noticed from communications in the Patent Office reports, that in Washington county, Pennsylvania, the most extensive wool-growing county in the Union, that it was not regarded as profitable there.

Mr. Hatfield said that he was a mechanic, but purposing

to turn his attention to farming, he had given considerable attention to rural subjects. As to the different kinds of stock, he came to the conclusion that on rich bottom lands, hogs were the most profitable, but uplands, where the land was easily exhausted, ought to be cultivated in grasses for sheep, cattle and horses. Clover grew well in these river bottoms, so that when the land became less productive, it could be put down in clover and hogs turned upon it. He had noticed that the farmers in the hilly lands who raised corn, did not seem to prosper, and indeed the cornfields showed that they could not. Upon such land there could be no doubt that sheep would be the most profitable mode of farming. Last winter he had visited Tennessee, and found that cattle raising was pursued there to a great extent. In the winter the cattle lived upon the cane, and become fat upon it, more so than in the summer upon grass, for then they were troubled with flies. There cattle cost the farmer no more than the looking after them.

Gov. Wright remarked that as the usual hour for adjourning had arrived, he would move that the subject for next evening's discussion should be wheat culture, including the kinds best to be sown, the mode of putting in and harvesting, &c.

Which was agreed to; when the meeting adjourned.

FEBRUARY 28, 1852.

Mr. Cockrum of Gibson, was called to the chair.

The subject discussed was "*Wheat culture.*"

Mr. Murray of Elkhart, remarked that he resided in a wheat growing portion of the State—his county, although organized so late as 1830, now being the second county in the State, in the production of wheat. It was settled chiefly by Pennsylvania farmers, who were accustomed to do their work well.

The mode of putting in wheat, almost uniformly practiced, was by summer fallow. They never put it in after an oats crop or in corn ground, unless forced to do so by existing circumstances. The summer fallow was performed in the following manner: About the first of June, being the time between the planting of corn and its ploughing, the ground, intended for wheat, was deeply broken up—about eight inches in depth. It was then left until the weeds and grass came up, when sheep were turned upon it. If the farmer had manure to spare, it was spread all over the ground before it was first ploughed. About the first of August, the ground was again ploughed, and suffered to lie, until from the first to the tenth of September, when the wheat was sown broadcast with from one to one and a-half bushels to the acre. The wheat was then, either harrowed in, or ploughed in with the barshare plough. If harrowed, it was gone over twice—the soil being sandy and easily mellowed, especially under the effects of the following system: When ploughed in, the plough was so set as not to run deeper than three inches.

The average yield depended upon the condition of the soil and the kind of wheat sown. They had five qualities of soil in Elkhart—the prairie, thick wood, burr oak, white oak, and black oak. The first yielded from 25 to 35 bushels to the acre, the second and third from 20 to 25, and the others from 15 to 20.

The quantity of seed proper to be sown, depended somewhat upon the mode of putting in. If ploughed in, a bushel and a quarter was sufficient, for all the grains were covered. But when harrowed in, a bushel and a half ought to be sown. It is a common error to sow too little seed in all our farming operations, for by so doing a chance is given to the weeds.

But the best mode of putting in wheat was by the drill. It saves seed, deposits it evenly, allowing regular spaces between the rows, thus giving to all parts of the plant a free circulation of the air. But its protection against freezing out, was its most commendable advantage. The wheat being

deposited in furrows or drills, the intermediate spaces were small ridges, which, by the action of the frost during the winter, were gradually leveled—the grouud falling over into the furrows, thus covering the roots of the wheat still deeper. These advantages must introduce the wheat drill to the notice of every farmer who annually cultivated 20 or 40 acres of wheat. The saving and increase production would pay for the drill in one or two seasons to all such farmers.

The different kinds of wheat cultivated in Elkhart county, were those usually cultivated in the north. But the best varieties rapidly deteriorate, and hence the interest taking in the introduction of new kinds. Every two or three years, the seed must be changed on the farm, the law of nature, in this respect, seemingly being the same as in the animal kingdom. This tendency to deterioration was readily seen in what was called with them, the club wheat. When first introduced, it had three rows of grains on each side of the stalk, making six in all. But after a few years cultivation it decreased to two rows on each side. This wheat was brought from Ohio, and stood the winters well, but was subject to be attacked by the fly. He did not doubt but that it would prove a valuable variety in the middle and southern portions of Indiana, if introduced there. The Mediterranean was in a great measure abandoned in his county, because it was liable to be killed by the late spring frosts in May, and sometimes in June, and being a red dark wheat, it was, on that account, docked by the millers from two to five cents a bushel. The Hutchinson wheat had been lately introduced from New York. It was probably the same as the New York white flint, for here we are accustomed to give the name of the person to the wheat introduced by him. This wheat, like the club wheat, now contains six rows and is very productive. We also cultivate the White Blue stem, originally introduced by the Patent Office into New York. It was sent to the Secretary of the New York Agricultural Society, by whom it was tested, and was so highly esteemed that it soon

found its way over New York and into Pennsylvania, from which State, and through the Patent Office, we have derived it, and hence it is in some places here, called the Pennsylvania Blue stem. Most of the Premiums awarded by the New York Agricultural fairs, are taken by the cultivators of this wheat. But from all accounts the most valuable variety yet introduced, is the Australian wheat. Some farmers had introduced it into Elkhart county the past fall from New York, where it readily sold from five to six dollars per bushel. For this wheat too, the country is indebted to the Patent Office. And, here he desired to say that he hoped this part of the General Government of our Union would soon be placed in a condition by which it could be made more useful still to the great agricultural interests of our country.

Rotation in crops, he said, was an essential requisite to profitable wheat culture. Clover and plaster must be resorted to, in order that the fertility of the soil may be sustained.

He would allude to but one other matter, and that was the most proper time to cut wheat. This has long been a controverted matter among agriculturists, and in order to determine it, one of the heaviest wheat growers in his county had made this experiment. Having a very large harvest on hands and the indications being unfavorable for good weather, he divided his fields into three portions, cutting the first one very green—when it was yet in the soft dough state. The second portion was cut at the usual time, and the third when quite ripe. He had these kept separate, and ground separate. That which was first cut, produced the best looking wheat, and made the most and best flour. The last harvested was the worst looking—the grain being smaller, and the flour darker. All of this wheat was ground by the best millers in the north part of the State, and shipped to New York. His own experience and observations were in accordance with the results of this experiment.

Mr. Williams of Knox, said that for many years it was supposed that the bottom lands in the section of the State in

which he resided, would not do for wheat, because of their greater liability to the rust. The preference was given to upland clay soils. But experience had shown that after the bottom lands had been under cultivation ten or twelve years they were better for wheat, and not as liable to rust. On one of these bottom lands he had put in a field of wheat, by ploughing it very deep in August, and sowing from the first to the tenth of September, at the rate of one and a quarter bushels to the acre. The yield averaged 25 bushels per acre. Deep ploughing he regarded as essentially necessary for the successful cultivation of wheat, and last fall he had broken up his ground very deep. The wheat now looks very favorable. Such ploughing and fallowing in June, must almost always meet with success.

The kinds now sown are the Alabama, red chaff-bearded, blue stem, old smooth late white, and Mediterranean. The last is a heavy wheat and hard to grind. The smooth white makes whiter flour, but the rust and fly are more fatal to it. The time of cutting is when the wheat is in a pretty thick dough state.

Mr. Hunter, of Marion, remarked that last year he had tried an experiment as to the best mode of putting in wheat. He drilled in six acres with Gatling's Wheat Drill, six acres he had ploughed in, and six acres he had sown broadcast and harrowed in. The land was the same, and in all respects alike. He thought that wheat might be put in too deeply, and, therefore, he had gaged the drill so as to put it in from two to two and a half inches in depth. When it first came up he supposed it was not thick enough, but on harvesting the whole field, he ascertained that the drilled wheat yielded 20 per cent over that which was ploughed in, and 25 per cent over that which was harrowed in. He therefore gave a preference to drilling over all other methods.

Mediterranean, golden straw, and Pennsylvania blue stem, were mostly sown here. The Mediterranean was well adapted to this climate. It was not as liable to the rust or

fly, and it could be sown and reaped earlier. He knew it was objected to by millers here, but if cut before it was quite ripe, it would yield as much flour as any other kind, and it was excellent also. The white blue stem is liable to the *red* rust, but this kind of rust is not very injurious. This wheat will wait upon the farmer, for it does not shatter out much when very ripe. Wheat ought, in his opinion, to be cut when the dough is in rather a dry state.

There was one subject he desired to refer to now, as some members of the Legislature were present. A law ought to be passed by which the amount of the products of the agriculture of the State could be annually ascertained. The progress made, and in what direction, could then be yearly seen. The assessors, he thought, ought to have power to take lists of the number of acres under cultivation, and their product, and also the number of each kinds of stock. As it is, we cannot forsee an over production of any one thing. Besides how do we stand under the census of 1850. They ear of 1849 was one of the worst wheat seasons in this State, and hence it is that we are represented as producing but six and a half millions of bushels of wheat. Under that wrong impression we must remain for ten years. He believed from these considerations that an annual census of our leading agricultural productions ought to be made. Ohio has adopted this plan, and its results are such that she would not now abandon it.

Mr. Bollman said that on account of the heretofore inland position of Monroe county, the culture of wheat had received but little attention, with a large portion of its farmers. But with the prospect of a railroad communication to market, matters were rapidly changing. Heretofore a very slovenly method had been generally pursued for putting in wheat. It was ploughed in on corn land already exhausted; the soil at no time having been broken up more than three inches. Of course complaints were made that wheat was very much subject to freezing out in winter, and that the average yield not being greater than 7½ bushels to the acre, would not re-

munerate the farmer for bestowing more careful tillage. The climate was said to be unpropitious, and thus the errors of men were charged to nature. But there were other farmers who ploughed deeply, turning the clover crop under, and harrowing well, who raised from 20 to 30 bushels to the acre.

The old varieties of wheat were not so productive as formerly, and the Mediterranean was rapidly becoming popular. He concurred in remarks just made, that this kind of wheat ought to be cut before it was out of the dough state. He had a small lot of three acres cut last year, which ripened very irregularly, owing to part of the ground having been manured. Some portions of it was in the milk—very green—but it was all cut down on the same day. The weather was very warm and dry, and he apprehended that the greenest parts would shrink very much; upon examining it however, it was but preceptably shrunk, and finer bread made out of it, he never ate; and of it he was a judge, being a Pennsylvanian. He had learned from one of the oldest millers in the county, that the best flour and best turn out ever made at his mill, was from this kind of wheat, which had been cut when in the softest dough state.

Through Mr. Bateham, the editor of the Ohio Cultivator, who had visited the World's Fair, their Agricultural Society had procured thirteen new varieties of wheat, grown in all parts of the world. If wheat, corresponding to the beauty of the specimens, could be raised here, their introduction will be of great benefit. One of these was the Australian, referred to by Mr. Murray, as having been already introduced by the Patent Office.

Of that Office, he desired to remark, that his thoughts had been directed towards it, because it had agents throughout the whole world, by which it could collect every foreign and domestic grains and seeds and plants, and through its post office arrangements, distribute them to every part of the country. The thirteen varieties of wheat, he had referred to had cost a few of the members of their Society about ten dollars,

and he thought that a Government which spent millions annually for the maintainance of classes called the *protecting* classes of the *producing* classes, should now devote a few thousands to a rather more direct method of benefiting these producing classes.

He coincided in the remarks made of the utility of the Drill. That of Mr. Gatling had been introduced into Monroe county last fall, and it had there recommended itself for a reason he had not yet seen stated in its favor. From about the 20th of August to the 20th of October, no rain had fallen. At the end of the first of these months, a field had been sown in three modes. Part drilled, a portion ploughed in, and part harrowed in. None came up but that which was drilled, until after the rain. It alone, of all the wheat sown at that time, held its way against one of the severest droughts ever known. The reason is obvious.

The drills are much lower than the ridges, and the wheat is deposited so deeply below the general surface of the field, as to be beyond the influence of the drying winds and scorching suns, but within that of the moisture arising from the subsoil. In a county like ours, so constantly subjected to these fall droughts, this advantage is of incalculable benefit. As to the time of sowing wheat, the practice of the best farmers in Monroe was to sow it when the last plowing was given to corn, as early as the beginning of July. The best crops had followed this early sowing, and he had heard of but one case in which it was *suspected* that the wheat had been subsequently killed on account of having been jointed. But he thought it was destroyed by other causes. Those who do not sow in corn ground were now changing the time of sowing from September to July and August.

Mr. Nelson, of Allen, said that the county from which he came was third in its production of wheat, but although favorably situated as to soil and climate, the farmers found it necessary to plow deeply, and to rotate their crops. Even with deep plowing, their crops would decrease, if wheat was

raised, year after year, on the same ground. Thus one of their best farmers had informed him, that he raised five successive crops of wheat on the same ground with these results. The first year he plowed deeply and raised a good crop. The second year he broke his ground still deeper, and had an increased crop. The third and fourth years he plowed deeper and deeper, using four horses the last of these years. The results were increased crops. But the fifth year he plowed the same depth as on the fourth year, and his crop was a diminished one—thus showing that without turning up new soil by deeper plowing, the crops would diminish.

The amount sown was about 1½ bushels to the acre, which was usually sown broad-cast and harrowed in by from three to four harrowings.

[Mr. Bollman. Some farmers down my way are satisfied that but one harrowing is necessary, for they say, that the second harrowing uncovers the wheat that the first harrowing buried.]

To this remark there was a general laugh; when Mr. Nelson continued. In Allen county, he said, the farmers had tried nearly all the kinds of wheat mentioned by Mr. Murray. They had a new kind called the white Mediterranean. By sowing early and having early kinds, the rust is usually avoided, but as to the yield, all things being equal, there was not much difference between them. A farmer who put in 90 acres, divided them into three fields of thirty acres each. One he sowed with Red-chaff, another with the White Mediterranean, but he had forgotton the kind sown in the third field. The yield was about alike, averaging 40 bushels to the acre. This, however, was an unusual yield, and the season was one of the most favorable. He attributed the success of the farmers of Allen to deep plowing and thorough harrowing, which was continued until the ground was thoroughly pulverized. He had no doubt about the drill being the best instrument to put in wheat. There is much, too, in the kinds

of wheat sown, but for reasons already referred to by others, the red Mediterranean is not sown.

Mr. Cockrum, from Gibson, concluded the discussion. The early settlers of this State, he said, had too little encouragement for many years to be good farmers, but now things were rapidly changing. In Gibson county it was formerly thought that the oak and hickory lands were best for wheat, but now it is seen that the black, rich, locust land is best. Last year the yield in some of these lands was as great as 40 bushels to the acre.

He was of the opinion that a frequent change of seed would be productive of the most beneficial results. The soil and climate best adapted to wheat growing, ought to furnish seed to those portions not so well adapted. The north part of the State ought to furnish it to the middle and south parts. He was led to this opinion by his observation of the growth of various products in that part of Mississppi where the cotton first begins to show itself.

If potatoes are sought to be raised there, it can only be done, by planting the northern potatoe. The first crop from them is a good one, but the second, from the same potatoes, is only a half crop, and the third yields potatoes not larger than marbles. So rapid is this deterioration. Their seed corn is chosen from our Western corn, and it yields "the rent" over their Southern corn. On the other hand, their cotton seed is brought from the Red river country—further south, where the climate is more native to the growth of cotton.

As to the cultivation of wheat, he thought that harrowing it in the spring after the frost was out of the ground, would be beneficial. But the error committed consists chiefly in exhausting the soil by long continued corn cropping, and then by attempting to put too much in wheat, especially after an exhausting crop of oats. Bad ground, with bad cultivation, cannot produce good crops.

With regard to the time of cutting wheat he thought that if

it was not affected by rust, it ought to be left to ripen fully, but if it has the black rust, it cannot be cut too soon.

March 6, 1852.

On Saturday evening last, the farmers met again in the State House. Mr. Williams of Knox, took the chair. The subject for the evening was "Fruit Culture."

Mr. Nelson had spoken on the subject before the arrival of the reporter.

Judge Gookins, of Vigo, was speaking of the *Strawberry*. He was in favor of growing more fruit, and thinks strawberries are profitable; had raised ten bushels last year on but a small piece of ground. They are easily cultivated, requiring but little labor or attention, if care is taken in planting. They need a hoeing out and top-dressing in the spring. He plants different varieties, Hovey's Seedling, &c., planting alternate rows of staminate and pistillate plants. The crop is valuable, selling from 10 to 20 cents a quart.

In raising *raspberries*, Mr. G. had been quite successful with several varieties, but considered the genuine red Antwerp as the only variety worthy of much attention. Practices fall instead of spring spading, as the latter would injure the business. Plants in rows or beds, which as well as strawberry beds, he changes every three years, and keeps them clear of weeds. The black Antwerp may also be cultivated with tolerable profit. Had not paid much attention to the gooseberry, having a sufficiency of fruit without it.

Mr. G. strongly recommended more attention to fruits and flowers by farmers on account of the good moral effects thereof. By thus rendering their homes attractive, children will not be led away into the vices and follies of neighboring towns and cities, where there is always a congregation of both virtues and vices, into the latter of which all are liable to be drawn. Nor did he regard it as unbecoming or undig-

nified in any man to be pleased with the culture of flowers, for it is a simple and pleasurable employment which tends much to make home attractive.

Mr. G. also gave a learned opinion in regard to the nature and cause of different kinds of blight, for a report of which we have not room, further than to say he regarded it as an epidemic, similar to that of the potatoe rot.

Mr. Nelson remarked in regard to *caterpillars*, that wherever wild cherry trees grew about farms, these insects were sure to be also. He therefore dispensed with these trees.

The *dry rot* had threatened to prove injurious to his Baldwin, Rhode Island Greening and Roxbury Russet species of apples.

Mr. N. was a delegate to the late National Pomological Convention, where the Ohio fruit appeared superior to any exhibited. Though Indiana had no specimens there, he thinks she can produce any equal to that of Ohio, and consequently cannot be surpassed as a fruit raising State. He regards fruit as profitable either for market or as food for stock. When a resident of New York, had seen valuable lot of hogs fattened entirely upon apples.

He agreed with Judge G. as to the moral effect of horticulture. It was a wonder to him why so few engaged in fruit raising, and were thus deprived of the many comforts they might possess. Grapes, which it is no trouble to raise any where and by any person, were seldom found among our farmers. He had them in abundance, and kept them the season through in perfection. His advice was to plant none but the Catawba and Isabella. No foreign grape was worth cultivating; and from considerable experience and money spent, he said were he planting 100 vines, 99 of them should be Catawba. Mr. N. had been successful with several English varieties of gooseberries, whose names he knew not. They did not mildew, though some grew on moist and others upon high and dry ground. He used chip manure exclusively.

Mr. Gookins said he never had a full grown caterpillar yet

upon his place. Always destroyed them in season. He remarked that where the wild cherry grew in groves, caterpillars were not often found on them, but otherwise when growing alone. He agreed with Mr. N. as to the best kind of grapes, and gave his mode of cultivation, of eight feet high trellices with horizontal bars, &c. He prunes in the summer, leaving three joints beyond the last bearing bud.

Mr. Thomas from the Wabash, a successful fruit raiser, gave his plans of culture, one of which was not to plow his orchard, but keeps the ground loose and moist by putting chip manure about the trees. With this method the other gentlemen could not agree.

Much was said of the curculio and its ravages upon different fruits, but nothing new elicited.

Gov. Wright remarked that while so many respectable nurserymen were scattered over the State in whom implicit confidence could be placed, no farmer should buy trees from or have those he had grafted by strangers of whom he knows nothing and whom he may never see or hear of again. Much imposition had been practiced in this business, to the great detriment of our fruit. In regard to the varieties of apples, he placed the Jenneting first and the Rambo next. Why, said he, will not people all enjoy the luxury and profit of fruit? He had known men to sell yearly $400 to $600 worth of apples, while their neighbors as regularly by their neglect or indolence deprived themselves of all fruit or profits from it. He agreed with Messrs. G. and N. in regard to their estimate of the value of flowers, and said he, "were I a young man, I would not visit a young lady a second time whose parlor or garden I did not find decked with these beauties of God's creation."

Dr. Lewis of Vanderburgh gave his theory of blight, which differed from that advanced by the other gentlemen. Dr. L., since following Downing's directions for pruning currants, has been quite successful with that fruit. His peaches never

fail either, being upon the banks of the Ohio and protected by the fogs.

In plowing orchards, Mr. Nelson says oxen should be used; or if horses, should be driven in tandem and with short whipple-trees, in order to preserve the bark of the trees.

The meeting adjourned to the 24th of April, at which time the fruit subject will be resumed.

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